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**TENTH ANNUAL REPORT**  
**OF THE**  
**Illinois State Bee-Keepers'**  
**Association**



**Organized Feb. 26, 1891**  
**SPRINGFIELD, ILLINOIS**

---

**Compiled by**  
**JAMES A. STONE, Secretary,**  
**R R. 4, Springfield, Ill.**

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TENTH ANNUAL REPORT

—OF THE—

# Illinois State Bee-Keepers' Association

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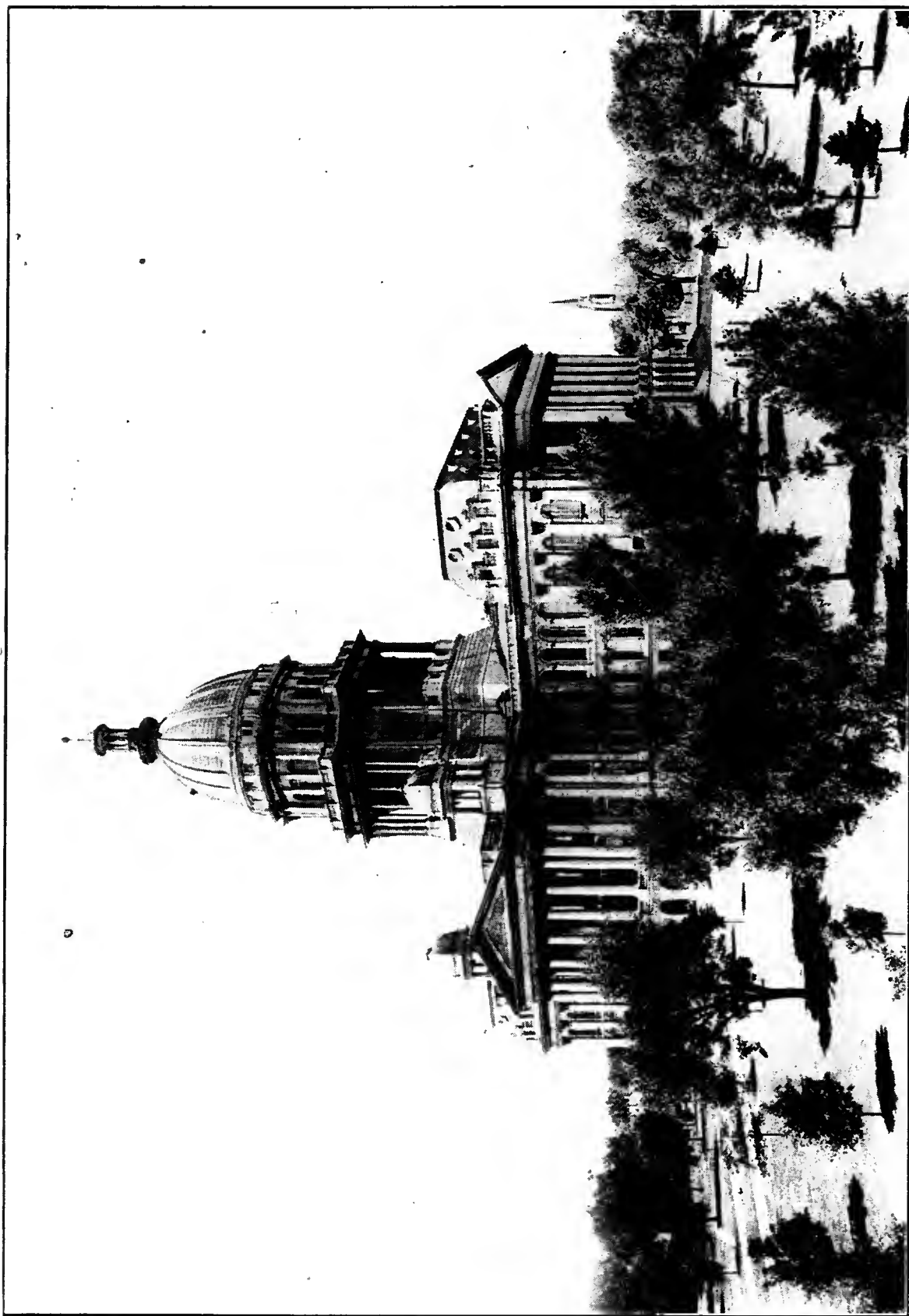
Organized Feb. 26, 1891,

—AT—

SPRINGFIELD, ILL.

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COMPILED BY  
JAMES A. STONE, SECRETARY,  
R. R. 4, Springfield, Ill.



ILLINOIS STATE CAPITOL BUILDING AT SPRINGFIELD,  
BEE-KEEPERS' MEETING PLACE.



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## LETTER OF TRANSMITTAL.

OFFICE OF THE SECRETARY,  
R. R. 4, SPRINGFIELD, ILL., March 1, 1911. }

*To his Excellency, Charles S. Deneen, Governor of the State  
of Illinois:*

SIR: I have the honor to transmit herewith the Tenth  
Annual Report of the Illinois State Bee-Keepers' Association.

Respectfully submitted,

JAMES A. STONE. *Secretary.*



FATHER LANGSTROTH,  
Inventor of the Movable Frame Hive.

# OFFICERS

—OF THE—

## Illinois State Bee-Keepers' Association

### FOR 1911

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C. P. DADANT, . . . . . President  
Hamilton, Ill.

A. L. KILDOW, . . . . . Putnam  
State Foul Brood Inspector.

#### VICE-PRESIDENTS.

1st—W. B. MOORE, . . . . . Altona

2d—J. W. BOWEN, . . . . . Jacksonville

3d—I. E. PYLES, . . . . . Putnam

4th—AARON COPPIN, . . . . . Wenona

5th—LOUIS WERNER, . . . . . Edwardsville

JAMES A. STONE, . . . . . Secretary

CHAS. BECKER, . . . . . Treasurer  
Pleasant Plains.

List of members will appear in back of Report. Also Statistical Report.



Following is a copy of the law passed by the Illinois Legislature May 19th, and signed by the Governor June 5th, 1911, to take effect July 1st, 1911:

## A BILL

For an Act to prevent the introduction and spread in Illinois of foul brood among bees, providing for the appointment of a State inspector of Apiaries and prescribing his powers and duties.

Whereas, the disease known as foul brood exists to a very considerable extent in various portions of this State, which, if left to itself, will soon exterminate the honey-bees; and

Whereas, the work done by an individual bee-keeper or by a State inspector is useless so long as the official is not given authority to inspect and, if need be, to destroy the disease when found; and

Whereas, there is a great loss to the bee-keepers and fruit growers of the State each year by the devastating ravages of foul brood;

Section 1. **Be it enacted by the People of the State of Illinois, represented in the General Assembly:** That the Governor shall appoint a State inspector of Apiaries, who shall hold his office for the term of two years, and until his successor is appointed and qualified, and who may appoint one or more assistants, as needed, to carry on the inspection under his supervision. The Inspector of Apiaries shall receive for each day actually and necessarily spent in the performance of his duties the sum of Four Dollars to be paid upon bills of particulars certified to as correct by the said State Inspector of Apiaries, and approved by the Governor.

Sec. 2. It shall be the duty of every person maintaining or keeping any colony or colonies of bees to keep the same free from the disease known as foul brood and from other contagious and infectious diseases among bees. All bee-hives, bee-fixtures or appurtenances where foul brood or other contagious or infectious diseases among bees exists, are hereby declared to be nuisances to be abated as hereinafter prescribed. If the inspector of apiaries shall have reason to believe that any apiary is infected by foul brood or other contagious disease, he shall have power to inspect, or cause to be inspected, from time to time, such apiary, and for the purpose of such inspection he, or his assistants, are authorized during reasonable business hours to enter into or upon any farm or premises, or other building or place used for the purpose of propagating or nurturing bees. If said inspector of apiaries, or his assistants, shall find by inspection that any person, firm or corporation is maintaining a nuisance as described in this section, he shall notify in writing the owner or occupant of the premises containing the nuisance so disclosed of the fact that such nuisance exists. He shall include in such notice a statement of the conditions constituting such nuisance, and order that the same be abated within a specified time and a direction, written or printed, pointing out the methods which shall be taken to abate the same. Such notice and order may be served personally or by depositing the same in the post office properly stamped, addressed to the owner or occupant of the land or premises upon which such nuisance exists, and the direction for treatment may con-

sist of a printed circular, bulletin or report of the Inspector of Apiaries, or an extract from same.

If the person so notified shall refuse or fail to abate said nuisance in the manner and in the time prescribed in said notice, the Inspector of Apiaries may cause such nuisance to be abated, and he shall certify to the owner or person in charge of the premises the cost of the abatement and if not paid to him within sixty days thereafter the same may be recovered, together with the costs of action, before any court in the State having competent jurisdiction.

In case notice and order served as aforesaid shall direct that any bees, hives, bee-fixtures or appurtenances shall be destroyed and the owner of such bees, hives, bee fixtures or appurtenances shall consider himself aggrieved by said order, he shall have the privilege of appealing within three days of the receipt of the notice to the county court of the county in which such property is situated. The appeal shall be made in like manner as appeals are taken to the county court from judgments of justices of the peace. Written notice of said appeal served by mail upon the Inspector of Apiaries shall operate to stay all proceedings until the decision of the county court, which may, after investigating the matter, reverse, modify or affirm the order of the Inspector of Apiaries. Such decision shall then become the order of the Inspector of Apiaries, who shall serve the same as hereinbefore set forth and shall fix a time within which such decision must be carried out.

Sec. 3. The Inspector of Apiaries shall, on or before the second Monday in December of each calendar year, make a report to the Governor and also to the Illinois State Bee Keepers' Association, stating the number of apiaries visited, the number of those diseased and treated, the number of colonies of bees destroyed and the expense incurred in the performance of his duties.

Sec. 4. Any owner of a diseased apiary or appliances taken therefrom, who shall sell, barter or give away any such apiary, appliance, queens or bees from such apiary, expose other bees to the danger of contracting such disease, or refuse to allow the Inspector of Apiaries to inspect such apiary, or appliances, shall be fined not less than \$50.00 nor more than \$100.00.

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NOTE—This bill would have been embodied in the report but was not enacted into law till after the books were bound.



## Formation of the Illinois State Bee-Keepers' Association.

Springfield, Ill., Feb. 26, 1891.

The Capitol Bee-Keepers' Association was called to order by President P. J. England.

Previous notice having been given that an effort would be made to form a State Association, and there being present bee-keepers from different parts of the State, by motion, a recess was taken in order to form such an Association.

P. J. England was chosen temporary chairman and C. E. Yocum temporary secretary. On motion, the Chair appointed Thos. G. Newman, C. P. Dadant and Hon. J. M. Hambaugh a committee on constitution.

Col. Chas. F. Mills addressed the meeting on the needs of a State Association, and stated that it was his opinion that the bee-keepers should have a liberal appropriation for a State Apiarian Exhibit at the World's Columbian Exposition.

A motion to adjourn till 1:30 p. m. prevailed.

### AFTERNOON SESSION.

The Committee on Constitution reported a form for same, which, on motion, was read by the Secretary, by sections serially.

Geo. F. Robbins moved to substitute the word "shall" for "may" in the last clause of Section 1, Article III. This led to a very animated discussion, and the motion was lost.

J. A. Stone moved to amend the above-named section by striking out the word "ladies" and all that followed of the same section, which motion led to further discussion, and motion finally prevailed.

Section 2, Article II., relating to a quorum, was, on motion, entirely stricken out.

Mr. Robbins moved to amend Article V. by adding the words "Thirty days' notice having been given to each member." Prevailed.

Thos. G. Newman moved to adopt the Constitution, so amended, as a whole. Which motion prevailed.

See Constitution.

J. A. Stone moved that the Chair appoint a nominating committee of three on permanent organization. Prevailed.

Chair appointed as such committee, Col. Chas. F. Mills, Hon. J. M. Hambaugh, and C. P. Dadant.

Committee retired and in a few minutes returned, submitting the following named persons as candidates for their respective offices:

For President—P. J. England, Fancy Prairie.

For Vice Presidents—Mrs. L. Harrison, Peoria; C. P. Dadant, Hamilton; W. T. F. Petty, Pittsfield; Hon. J. M. Hambaugh, Spring; Dr. C. C. Miller, Marengo.

Secretary—Jas. A. Stone, Bradfordton.

Treasurer—A. N. Draper, Upper Alton.

Mr. Black moved the adoption of the report of the committee on nominations. The motion prevailed, and the officers as named by the committee were declared elected for the ensuing year.

Hon. J. M. Hambaugh moved that Mr. Thos. G. Newman, editor American Bee Journal, of Chicago, be made the first honorary member of the Association. Prevailed.

At this point Col. Chas. F. Mills said: "Mr. Chairman, I want to be the first one to pay my dollar for membership," at the same time suiting his action to his words, and others followed his example, as follows:

### CHARTER MEMBERS.

Col. Chas. F. Mills, Springfield.  
Hon. J. M. Hambaugh, Spring.  
Hon. J. S. Lyman, Farmingdale.  
C. P. Dadant, Hamilton.  
Chas. Dadant, Hamilton.  
A. N. Draper, Upper Alton.  
S. N. Black, Clayton.  
Aaron Coppin, Wenona.  
Geo. F. Robbins, Mechanicsburg.  
J. W. Yocum, Williamsville.  
Thos. S. Wallace, Clayton.  
A. J. England, Fancy Prairie.  
P. J. England, Fancy Prairie.  
C. E. Yocom, Sherman.  
Jas. A. Stone, Bradfordton.

### FIRST HONORARY MEMBER.

Thos. G. Newman, editor American Bee Journal, Chicago.

# State of Illinois—Department of State

ISAAC N. PEARSON, Secretary of State.

*To all to whom these Presents shall come—GREETING:*

Whereas, A certificate duly signed and acknowledged having been filed in the office of the Secretary of State on the 27th day of February, A. D. 1891, for the organization of the Illinois State Bee-keepers' Association, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereunto attached.

Now, Therefore, I, Isaac N. Pearson, Secretary of State, of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said, The Illinois State Bee-Keepers' Association, is a legally organized corporation under the laws of the State.

In Testimony Whereof, I hereunto set my hand and cause to be affixed the great seal of State.

Done at the City of Springfield, this 27th day of February, in the [Seal] year of our Lord one thousand eight hundred and ninety one, and the Independence of the United States the one hundred and fifteenth.

I. N. PEARSON,  
Secretary of State.

STATE OF ILLINOIS, } ss.  
County of Sangamon.

To Isaac N. Pearson, Secretary of State:

We, the undersigned, Perry J. England, Jas. A. Stone and Albert N. Draper, citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations," approved April

18, 1872, and all acts amendatory thereof; and for the purposes of such organizations, we hereby state as follows, to-wit:

1. The name of such corporation is, The Illinois State Bee-Keepers' Association.

2. The object for which it is formed is, to promote the general interests of the pursuit of bee-culture.

3. The management of the aforesaid Association shall be vested in a board of three Directors, who are to be elected annually.

4. The following persons are hereby selected as the Directors, to control and manage said corporation for the first year of its corporate existence, viz.: Perry J. England, Jas. A. Stone, and Albert N. Draper.

5. The location is in Springfield, in the County of Sangamon, State of Illinois. [Signed,]

Perry J. England,  
Jas. A. Stone,  
Albert N. Draper.

STATE OF ILLINOIS, } ss.  
Sangamon County.

I, S. Mendenhall, a notary public in and for the County and State aforesaid, do hereby certify that on this 26th day of February, A. D. 1891, personally appeared before me, Perry J. England, James A. Stone and Albert N. Draper, to me personally known to be the same persons who executed the foregoing certificate, and severally acknowledged that they had executed the same for the purposes therein set forth.

In witness whereof, I have hereunto set my hand and seal the day and year above written.

[Seal]

S. Mendenhall,  
Notary Public.

## CONSTITUTION AND BY-LAWS

—OF THE—

# Illinois State Bee-Keepers' Association

## CONSTITUTION

Adopted Feb. 26, 1891.

### ARTICLE I.—Name.

This organization shall be known as The Illinois State Bee-Keepers' Association, and its principal place of business shall be at Springfield, Ill.

### ARTICLE II.—Object.

Its object shall be to promote the general interests of the pursuit of bee-culture.

### ARTICLE III.—Membership.

Section 1. Any person interested in Apiculture may become a member upon the payment to the Secretary of an annual fee of one dollar (\$1.00). (Amendment adopted at annual meeting, November, 1905): And any affiliating Association, as a body, may become members on the payment of an aggregate fee of fifty cents (50c) per member, as amended Nov., 1910.

Sec. 2. Any persons may become hon-

orary members by receiving a majority vote at any regular meeting.

### ARTICLE IV.—Officers.

Section 1. The officers of this Association shall be, President, Vice-President, Secretary and Treasurer. Their terms of office shall be for one year, or until their successors are elected and qualified.

Sec. 2. The President, Secretary and Treasurer shall constitute the Executive Committee.

Sec. 3. Vacancies in office — by death, resignation and otherwise — shall be filled by the Executive Committee until the next annual meeting.

### ARTICLE V.—Amendments.

This Constitution shall be amended at any annual meeting by a two-thirds vote of all the members present — thirty days' notice having been given to each member of the Association.

## BY-LAWS

### ARTICLE I.

The officers of the Association shall be elected by ballot and by a majority vote.

### ARTICLE II.

It shall be the duty of the President to call and preserve order at all meetings of this Association; to call for all reports of officers and committees; to

put to vote all motions regularly seconded; to count the vote at all elections, and declare the results; to decide upon all questions of order, and to deliver an address at each annual meeting.

### ARTICLE III.

The Vice-Presidents shall be numbered, respectively, First, Second, Third, Fourth and Fifth, and it shall be

the duty of one of them, in his respective order, to preside in the absence of the President.

#### ARTICLE IV.

Section 1. It shall be the duty of the Secretary to report all proceedings of the Association, and to record the same, when approved, in the Secretary's book; to conduct all correspondence of the Association, and to file and preserve all papers belonging to the same; to receive the annual dues and pay them over to the Treasurer, taking his receipt for the same; to take and record the name and address of every member of the Association; to cause the Constitution and By-Laws to be printed in appropriate form, and in such quantities as may be directed by the Executive Committee from time to time, and see that each member is provided with a copy thereof; to make out and publish annually, as far as practicable, statistical table showing the number of colonies owned in the spring and fall, and the amount of honey and wax produced by each member, together with such other information as may be deemed important, or be directed by the Executive Committee; and to give notice of all meetings of the Association in the leading papers of the State, and in the bee journals at least four weeks prior to the time of such meeting.

Sec. 2. The Secretary shall be allowed a reasonable compensation for his services, and to appoint an assistant Secretary if deemed necessary.

#### ARTICLE V.

It shall be the duty of the Treasurer to take charge of all funds of the As-

sociation, and to pay them out upon the order of the Executive Committee, taking a receipt for the same; and to render a report of all receipts and expenditures at each annual meeting.

#### ARTICLE VI.

It shall be the duty of the Executive Committee to select subjects for discussion and appoint members to deliver addresses or read essays, and to transact all interim business.

#### ARTICLE VII.

The meeting of the Association shall be, as far as practicable, governed by the following order of business:

- Call to order.
- Reading minutes of last meeting.
- President's address.
- Secretary's report.
- Treasurer's report.
- Reports of committees.
- Unfinished business.
- Reception of members and collection.
- Miscellaneous business.
- Election and installation of officers.
- Discussion.
- Adjournment.

#### ARTICLE VIII.

These By-Laws may be amended by a two-thirds vote of all the members present at any annual meeting.

C. E. Yocom,  
Aaron Coppin,  
Geo. F. Robbins

(Bill asked for in the 47th General Assembly.)

## Bee-Keepers' Association

§ 1. For expenses of annual meetings, and for foul brood inspection per annum, \$3,000; officers to receive no salary.

§ 2. How drawn.

§ 3. Duty of Treasurer of Association.

### A BILL

For an act making an appropriation for the Illinois State Bee-Keepers' Ass'n.

Whereas, The members of the Illinois State Bee-Keepers' Association have for years given much time and labor without compensation in the endeavor to promote the interests of the bee-keepers of the State; and,

Whereas, The importance of the industry to the farmers and fruit-growers of the State warrants the expenditure of a reasonable sum for the holding of annual meetings, the publication of reports and papers containing practical information concerning bee-keeping, therefore, to sustain the same and enable this organization to defray the expenses of annual meetings, publishing reports, suppressing foul brood among bees in the State, and promote the industry in Illinois;

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: That there be and is hereby appropriated for the use of the Illinois State Bee-Keepers' Association the sum of three thousand dollars (\$3,000) per annum for the years 1911 and 1912. For the purpose of advancing the growth and developing the interests of the bee-keepers of Illinois, said sum to be expended under the direction of the Illinois State

Bee-Keepers' Association for the purpose of paying the expenses of holding annual meetings, publishing the proceedings of said meetings, suppressing foul brood among bees in Illinois, etc.

Provided, however, That no officer or officers of the Illinois State Bee-Keepers' Association shall be entitled to receive any money compensation whatever for any services rendered for the same, out of this fund.

Sec. 2. That on the order of the President, countersigned by the Secretary of the Illinois State Bee-Keepers' Association, and approved by the Governor, the Auditor of Public Accounts shall draw his warrant on the Treasurer of the State of Illinois in favor of the treasurer of the Illinois State Bee-Keepers' Association for the sum herein appropriated.

Sec. 3. It shall be the duty of the treasurer of the Illinois State Bee-Keepers' Association to pay out of said appropriation, on itemized and receipted vouchers, such sums as may be authorized by vote of said organization on the order of the president, countersigned by the secretary, and make annual report to the Governor of all such expenditures, as provided by law.

## A BILL,

As asked for in the 47th General Assembly,

For an act providing for the appointment of a State Inspector of Apiaries,  
and prescribing his powers and duties.

Whereas, The disease known as foul brood exists to a very considerable extent in various portions of this State, which, if left to itself, will soon exterminate the honey bees; and,

Whereas, The work done by an individual bee-keeper or by a State Inspector is useless so long as the official is not given authority to inspect and, if need be, to destroy the disease when found; and,

Whereas, There is a great loss to the bee-keepers and fruit-growers of the State each year by the devastating ravages of foul brood:

Section 1. Be it enacted by the People of the State of Illinois, represented in the General Assembly: That the Governor shall appoint a State Inspector of Apiaries, who shall hold his office for the term of two years, and until his successor is appointed and qualified, and who may appoint one or more assistants, as needed, to carry on the inspection under his supervision.

Sec. 2. Said Inspector shall, when notified of the existence of foul brood, or any other contagious or infectious disease among apiaries, examine all such as are so reported, and all others in the same locality, and ascertain whether or not such disease exists, and, if satisfied of its existence, shall give the owner or the person who has the care of such apiaries full instructions as to the manner of treating them. In case the owner of a diseased apiary

shall refuse to treat his bees as directed, then the said Inspector may treat them at the owner's expense, or burn the diseased colonies, or their combs, as in his judgment seems best to prevent the spread of the disease.

Sec. 3. The Inspector shall, on or before the second Monday of December in each calendar year, make a report to the Governor and also to the Illinois State Bee-Keepers' Association, stating the number of apiaries visited; the number of those diseased and treated; the number of colonies of bees destroyed, and the expense incurred in the performance of his duties. Said Inspector shall receive \$4.00 for each day actually and necessarily spent in the performance of his duties, and be reimbursed for the money expended by him in defraying his expenses, out of the appropriation made to the Illinois State Bee-Keepers' Association; provided, that the total expenditures for such purposes shall not exceed three-fourths of the amount appropriated.

Sec. 4. Any owner of a diseased apiary or appliances taken therefrom, who shall sell, barter or give away any such apiary, appliance, queens or bees from such apiary, expose other bees to the danger of contracting such disease, or refuse to allow the Inspector of Apiaries to inspect such apiary, or appliances, shall be fined not less than fifty dollars nor more than one hundred dollars.



No. ....

CERTIFICATE OF

Illinois State Foul Brood Inspector of Apiaries.

---

Date.....191....

I have this day inspected the Apiary of:—

Mr. ....

P. O.....

No. of colonies in Apiary.....

Last winter.....	{	In cellar.....	Loss.....
		Outside.....	Loss.....

191....Honey....	{	Lbs. Comb.....
		Lbs. Extracted.....

No. colonies apparently healthy.....

No. colonies diseased.....

Name of disease.....

Date bees to be treated.....

No. colonies or hives to be burned.....

Subscriber for .....

Remarks .....

.....

.....

Foul Brood Inspector of Illinois.

## Code of Rules and Standards for Grading Apiarian Exhibits at Fairs, as Adopted by Illinois State Bee-Keepers' Association.

### COMB HONEY.

Rule 1. Comb honey shall be marked on a scale of 100, as follows:

Quantity .....	40
Quality .....	40
Style of display.....	20
Rule 2. Points of quality should be:	
Variety .....	5
Clearness of capping.....	10
Completeness of capping.....	5
Completeness of filling.....	5
Straightness of comb.....	5
Uniformity .....	5
Style of section.....	5

Remarks: 1. By variety is meant different kinds, with regard to the sources from which the honey is gathered, which adds much interest to an exhibit.

2. By clearness of capping is meant freedom from travel stain and a water soaked appearance. This point is marked a little high, because it is a most important one. There is no better test of the quality of comb honey than the appearance of the cappings. If honey is taken off at the proper time, and cared for as it should be, so as to preserve its original clear color, body and flavor will take care of themselves, for excellence in the last two points always accompanies excellence in the first. Clover and basswood honey should be white; heartsease, a dull white tinged with yellow; and Spanish needle, a bright yellow.

3. By uniformity is meant closeness of resemblance in the sections composing the exhibit.

4. By style is meant neatness of the sections, freedom from propolis, etc.

5. Honey so arranged as to show every section should score the highest in style of display, and everything that may add to the tastiness and attractiveness of an exhibit should be considered.

#### EXTRACTED HONEY.

Rule 1. Extracted honey should be marked on a scale of 100, as follows:

Quantity .....	40
Quality .....	45
Style of display.....	15
Rule 2. The points of quality should be:	
Variety .....	10
Clearness of color.....	5
Body .....	5
Flavor .....	5
Style of package.....	10
Variety of package.....	5
Finish .....	5

Remarks: 1. Light clover honey pouring out of a vessel is a very light straw color; Spanish needle, a golden hue, and dark clover honey, a dull amber.

2. Style of package is rated a little high, not only because in that consists the principal beauty of an exhibit of extracted honey, but also because it involves the best package for marketing. We want to show honey in the best shape for the retail trade, and that, in this case, means the most attractive style for exhibition. Glass packages should be given the preference over tin; flint glass over green, and smaller vessels over larger, provided the latter run over one or two pounds.

3. By variety of package is meant chiefly different sizes; but small pails for retailing, and, in addition, cans or kegs (not too large) for wholesaling, may be considered. In the former case, pails painted in assorted colors, and lettered "Pure Honey," should be given the preference.

4. By finish is meant capping, labeling, etc.

5. Less depends upon the manner of arranging an exhibit of extracted than of comb honey, and for that reason, as well as to give a higher number of points to style of package, a smaller scale is allowed for style of display.

### SAMPLES OF COMB AND EXTRACTED HONEY.

Rule 1. Single cases of comb honey, entered as such for separate premiums, should be judged by substantially the same rules as those given for a display of comb honey, and samples of extracted, by those governing displays of extracted honey.

Rule 2. Samples of comb or extracted honey, as above, may be considered as part of the general display in their respective departments.

### GRANULATED HONEY.

Rule 1. Candied or granulated honey should be judged by the rules for extracted honey, except as below.

Rule 2. The points of quality should be:

Variety .....	10
Fineness of grain.....	5
Color .....	5
Flavor .....	5
Style of package.....	10
Variety of package.....	5
Finish .....	5

Rule 3. An exhibit of granulated honey may be entered or considered as part of a display of extracted honey.

### NUCLEI OF BEES.

Rule. Bees in observation hives should be marked on a scale of 100, as follows:

Color and markings.....	30
Size of bees.....	30
Brood .....	10
Queen .....	10
Quietness .....	5
Style of comb.....	5
Style of hive.....	10

Remarks: 1. Bees should be exhibited only in the form of single frame nuclei, in hives or cages with glass sides.

2. Italian bees should show three or more bands, ranging from leather color to golden or light yellow.

3. The markings of other races should be those claimed for those races in their purity.

4. A nucleus from which the queen is omitted should score zero on that point.

5. The largest quantity of brood in all stages or nearest to that should score the highest in that respect.

6. The straightest, smoothest and most complete comb, with the most honey consistent with the most brood, should score the highest in that respect.

7. That hive which is neatest and best made and shows the bees, etc., to the best advantage should score the highest.

### QUEEN BEES.

Rule. Queen bees in cages should be marked on a scale of 100, as follows:

Quantity .....	40
Quality and variety.....	40
Style of caging and display....	20

Remarks: 1. The best in quality consistent with variety should score the highest. A preponderance of Italian queens should outweigh a preponderance of black ones, or, perhaps, of any other race or strain; but sample queens of any or all varieties should be duly considered. Under the head of quality should also be considered the attendant bees. There should be about a dozen with each queen.

2. Neatness and finish of cages should receive due consideration, but the principal points in style are to make and arrange the cages so as to show the inmates to the best advantage.

### BEESWAX.

Rule. Beeswax should be marked on a scale of 100, as follows:

Quantity .....	40
Quality .....	40
Style of display.....	20

Remarks: 1. Pale, clear, yellow specimens should score the highest, and the darker grades should come next in order.

2. By style is meant chiefly the forms in which the wax is molded and put up for exhibition. Thin cakes or small pieces are more desirable in the retail trade than larger ones. Some attention may be given to novelty and variety.

# Foul Brood and Other Diseases of Bees

(Republished by permission of N. E. France, Foul Brood Inspector of Wisconsin.)

Foul brood—*bacillus alvei*—is a fatal and contagious disease among bees, dreaded most of all by bee-keepers. The germs of disease are either given to the young larval bee in its food when it hatches from the egg of the queen-bee, or it may be contagion from a diseased colony, or if the queen deposits eggs, or the worker-bees store honey or pollen in such combs. If in any one of the above cases, the disease will soon appear, and the germs increase with great rapidity, going from one little cell to another, colony to colony of bees, and then to all the neighboring apiaries, thus soon-leaving whole apiaries with only diseased combs to inoculate others. The Island of Syria in three years lost all of its great apiaries from foul brood. Dzierzon, in 1868, lost his entire apiary of 500 colonies. Cowan, the editor of the British Bee Journal, recently wrote: "The only visible hindrance to the rapid expansion of the bee industry is the prevalence of foul brood, which is so rapidly spreading over the country as to make bee-keeping a hazardous occupation."

Canada's foul brood inspector, in 1890 to 1892, reported 2,395 cases, and in a later report for 1893 to 1898, that 40 per cent of the colonies inspected were diseased. Cuba is one of the greatest honey-producing countries, and was lately reported to me by a Wisconsin bee-keeper who has been there, and will soon return to Wisconsin: "So plentiful is foul brood in Cuba that I have known whole apiaries to dwindle out of existence from its ravages, and hundreds more are on the same road to sure and certain death. I, myself, took, in 90 days in Cuba, 24,000 pounds of fine honey from 100 colonies, but where is that apiary and my other 150-colony apiary? Dead from foul brood." Cuba, in 1901, exported 4,795,600 pounds of honey, and 1,022,897 pounds of beeswax.

Cuba at present has laws to suppress foul brood, and her inspector is doing all possible to stamp the same from the island.

Even in Wisconsin I know of several quite large piles of empty hives, where also many other apiaries where said disease had gotten a strong foothold.

By the kindness of the Wisconsin bee-keepers, and, in most cases, by their willing assistance, I have, during the last five years, gotten several counties free of the disease, and at the present writing, March 12, 1902, have what there is in Wisconsin under control and quarantined. This dreadful disease is often imported into our State from other States and countries, so we may expect some new cases to develop until all the States shall enact such laws as will prevent further spread of the same. Arizona, New York (1899), California (1891), Nebraska (1895), Utah (1892), Colorado (1897), have county inspectors, and Wisconsin (1897), and Michigan (1901), have State inspectors. The present Wisconsin law, after five years of testing and rapid decrease of the disease, is considered the best, and many other States are now making efforts to secure a like law.

There are several experimental apiaries in Canada, under control of the Ontario Agricultural College; also a few in the United States, especially in Colorado, that have done great work for the bee-keeping industry, and their various published bulletins on the same are very valuable. The Wisconsin State Bee-Keepers' Association has asked that an experimental apiary might be had on the Wisconsin Experimental Farm, but at present there are so many departments asking for aid that I fear it may be some time before bee-culture will be taken up.

## Causes of Foul Brood.

1. Many writers claim foul brood

originates from chilled or dead brood. Dr. Howard, of Texas, one of the best practical modern scientific experimenters, a man of authority, has proven beyond a doubt that chilled or common dead brood does not produce foul brood. I have, in the last five years, also proven his statements to be true in Wisconsin, but I do believe such conditions of dead brood are the most favorable places for lodgment and rapid growth of disease. Also, I do not believe foul brood germs are floating in the air, for, if they were, why would not every brood-comb cell of an infective hive become diseased? I believe that this disease spreads only as the adult bees come in contact with it, which is often through robber-bees. Brood-combs should not be removed from any colony on cold or windy days, nor should they be left for a moment in the direct rays of sunshine on hot days.

2. The foul brood may be caused by the need of proper food and temperature. Generally this disease does not appear to be serious during a honey-flow, but at the close of the honey season, or at time of scarcity, it is quite serious, and as the bees at such times will rob anywhere they can find stores, whether from healthy or diseased combs, it is the duty of every bee-keeper to keep everything carefully protected. Hive-entrances contracted, no old combs or any article with a drop of honey in where the bees can get to it. While honey is coming in from the various flowers, quite a portion is used direct as food for the larval bee, and with such no disease would be fed to the bees. Such fed bees, even in a diseased hive, will hatch, as is often the case. I never knew a case where a bee hatched from a brood cell that had ever had foul brood in. If the germs of disease are there in the dried scale attached to the lower side walls, bees will store honey therein; the queen will deposit eggs, or the cell may be filled with pollen, or beebread, as some call it. Said honey, or pollen, when it comes in contact with those germs of disease, or the food given to the young bee, if in the proper temperature, said germs of disease will grow and develop rapidly.

#### Causes of Contagion.

I fully believe that if the history of foul brood in Wisconsin were known,

nearly every case could be traced to contagion from diseased combs, honey, or from home diseased queen-breeders' cages. Here are some instances where I have traced the history of contagion in Wisconsin:

1. Diseased apiaries, also single colonies, sold either at auction or private sale. Several law suits have resulted in the settlement of some of the cases.

2. Brood-combs and various implements from diseased hives, used by other bee-keepers, and borrowed articles.

3. All the bees in an apiary dead from foul brood, and the hives having an abundance of honey in the brood-combs, said combs placed out by the side of hives, so that neighbor's bees might get the honey. From those combs I lined robber bees to seven other apiaries, and each time became diseased and were treated.

4. Robber bees working on empty honey packages in the back yards of grocery stores and baking factories. Said honey came from diseased apiaries, some located in far distant States, even Cuba.

5. Loaning of hives, combs, extractors, and even empty honey-packages.

6. Buying honey from strangers, or not knowing where it was produced, and feeding it to bees without boiling the honey.

7. Too common a practice of using old brood-combs from some apiary where the owner's bees have died from "bad luck," as he calls it.

8. Queen-bee—by buying queen bees from strangers and introducing her in the cages they came in. I have traced several new outbreaks of the disease to the hives where such queens were introduced, and the queens came from distant States. To be safe, on arrival of queen, put her carefully alone in a new and clean cage with good food in it. Keep her in there, warm and comfortable, for a few hours before introducing. The shipping cage and every bee that came with the queen should be put in the stove and burned. I do not think there is any danger from the queen so treated, even from diseased hives, but I do know of many cases where disease soon appeared in the hives, where the shipping cage and bees were put in with the colony. The great danger is in the food in said cage being made from diseased honey. I was called to

attend a State bee-keepers' meeting in another State, and I asked if any there had had experience with foul brood. There was a goodly number of raised hands. Then I asked: "Do any of you think you got the disease by buying queen-bees?" Again several hands were raised. Even bee-keepers there had traced the disease in their apiaries to the buying of queens, and all from the same breeder. If you get queens from abroad, I hope you will do with them as I have described above. Better be on the safe side.

### Experiments.

1. A prominent Wisconsin bee-keeper some years ago had foul brood among his bees so bad that he lost 200 colonies before the disease was checked. Having a honey-extractor and comb-foundation machine, he first boiled the hives in a large sorghum pan, then in a kettle all combs were melted after the honey was extracted; the honey was boiled and also the extractor and implements used. The bees were returned to their hives on comb-foundation he made from the wax made from the melted combs, then fed the boiled honey. Several years have passed, and there has been no sign of disease in his apiary since.

2. Foul-brood germs are not always killed when exposed to a temperature of 212 deg. F. (boiling point) for 45 minutes. But in every case where the combs are boiled in boiling water, and same were well stirred while boiling, no germs were alive.

3. Foul brood in brood-combs is not destroyed when exposed to the temperature of Wisconsin winters of 20 deg. below zero, and in one case I developed foul brood from combs that had been exposed to 28 deg. below zero.

4. Honey, if stored in diseased combs, acts as a preserving medium, and in such cases the germs of disease will remain so long as the comb is undisturbed. Four years at least.

5. Honey or beeswax, or the refuse from a solar or sunheat extractor, is not heated enough to kill foul-brood germs. Several cases of contagion where robber bees worked on solar extractor refuse or honey.

6. Comb-foundation made by supply manufacturers is free from live germs of disease and perfectly safe to use. To prove this experiment beyond a doubt, I took a quantity of

badly diseased brood-combs from several apiaries and rendered each batch of combs into wax myself on the farm where found. Then on my own foundation mill I made some brood-foundation. I also took quite a quantity more of said wax, went to two wholesale comb-foundation manufacturers, and both parties willingly made my experimental wax into comb-foundation, just the same as they do every batch of wax. I then divided the various makes of foundation, and selected 20 of the best bee-yards in Wisconsin, where no disease has ever been known; had the same placed in 62 of their best colonies, and in every case no signs of disease have appeared. Those same colonies continue to be the best in the various apiaries.

### Symptoms of Foul Brood.

1. The infected colony is not liable to be as industrious. Hive entrance with few guard bees to protect their home. Sometimes fine dirt or little bits of old comb and dead bees in and around the hive-entrance, and often robber bees seeking entrance.

2. Upon opening the hive, the brood in the combs is irregular, badly scattered, with many empty cells which need inspection.

3. The cappings over healthy brood are oval, smooth, and of a healthy color peculiar to honey-bee brood, but if diseased, the cappings are sunken, a little darker in color, and have ragged pin holes. The dead larval bee is of a light color, and, as it is termed, ropy, so that if a toothpick is inserted and slowly withdrawn, this dead larva will draw out much like spittle or glue.

4. In this ropy stage there is more or less odor peculiar to the disease; it smells something like an old, stale gluepot. A colony may be quite badly affected and not emit much odor, only upon opening of the hive or close examination of the brood. I have treated a few cases where the foul brood odor was plainly noticed several rods from the apiary.

5. Dried Scales.—If the disease has reached the advanced stages, all the above described conditions will be easily seen and the dried scales as well. This foul matter is so tenacious that the bees cannot remove it, so it dries down on the lower side-wall of the cell, midway from the bottom to front end of the cell, seldom on the bottom



of the cell. According to its stage of development, there will be either the shapeless mass of dark brown matter, on the lower side of the cell, often with a wrinkled skin covering, as if a fine thread had been inserted in the skin lengthwise and drawn enough to form rib-like streaks on either side. Later on it becomes hardened, nearly black in color, and in time dries down to be as thin as the side walls of the cell. Often there will be a small dried bunch at the front end of the cell, not larger than a part of a common pin head. To see it plainly, take the comb by the top bar and hold it so that a good light falls into the cell at an angle of 75 degrees from the top of the comb, while your sight falls upon the cell at an angle of about 45 degrees. The scales, if present, will easily be seen as above described. This stage of disease in combs is easily seen, and is always a sure guide or proof of foul brood. Such combs can never be used safely by the bees, and must be either burned or carefully melted. Be sure not to mistake such marked combs in the spring for those soiled with bee dysentery. The latter have a somewhat similar appearance, but are more or less surface soiled, and will also be spotted or have streaked appearance by the dark brown sticky excrements from the adult bees.

#### Treatment.

"A bee-keeper who does not discover foul brood, before his nostrils remind him that there is something wrong with his bees, is not the proper person to treat the case," Dr. Howard, in his valuable book on foul brood, states. "I regard the use of all drugs in the treatment of foul brood as a useless waste of time and material, wholly ineffectual, inviting ruin and total loss of bees. Any method which has not for its object the entire removal of all infectious material beyond the reach of both bees and brood, will prove detrimental and destructive, and surely encourage the recurrence of the disease." In Wisconsin, I have tried many methods of treatment, and cured some cases with each method; but the one that never fails, if carefully followed, and that commends itself, is the McEvoy treatment. Canada's foul brood inspector has cured foul brood by the wholesale—thousands of cases.

#### McEvoy Treatment.

"In the honey season, when the bees are gathering honey freely, remove the combs in the evening and shake the bees into their own hives; give them frames with comb-foundation starters, and let them build comb for four days. The bees will make the starters into comb during the four days, and store the diseased honey in them, which they took with them from the old comb. Then, in the evening of the fourth day, take out the new combs and give them comb-foundation (full sheets) to work out, and then the cure will be complete. By this method of treatment all the diseased honey is removed from the bees before the full sheets of foundation are worked out. All the old foul-brood combs must be burned or carefully made into wax, after they are removed from the hives, and all the new combs made out of the starters during the four days must be burned or made into wax, on account of the diseased honey that would be stored in them. All the curing or treating of diseased colonies should be done in the evening, so as not to have any robbing done, or cause any of the bees from the diseased colonies to mix and go with the bees of healthy colonies. By doing all the work in the evening, it gives the bees a chance to settle down nicely before morning, and then there is no confusion or trouble. This same method of curing colonies of foul brood can be carried on at any time from May to October, when the bees are not getting any honey, by feeding plenty of sugar syrup in the evenings to take the place of the honey-flow. It will start the bees robbing and spread the disease, to work with foul brood colonies in warm days when the bees are not gathering honey, and for that reason all work must be done in the evenings when no bees are flying.

"When the diseased colonies are weak in bees, put the bees, two, three, or four colonies together, so as to get a good sized colony to start the cure with, as it does not pay to spend time fussing with little, weak colonies. When the bees are not gathering honey, any apiary can be cured of foul brood by removing the diseased combs in the evening and giving the bees frames with comb-foundation starters on. Then, also, in the evening feed

the bees plenty of sugar syrup, and they will draw out the foundation and store the diseased honey which they took with them from the old combs; on the fourth evening remove the new combs made out of the starters, and give the bees full sheets of comb-foundation, and feed plenty of sugar syrup each evening, until every colony is in first class order. Make the syrup out of granulated sugar, putting one pound of water to every pound of sugar, and bring it to a boil. As previously stated, all the old comb must be burned, or made into wax, and so must all new combs made during the four days. No colony is cured of foul brood by the use of any drug.

A. I. Root, of Medina, Ohio, says: "The starvation plan, in connection with burning the combs and frames and boiling the hives, has worked the best in treating foul brood. It never appeared after such treatment, though it did in some cases where the hives were honey-stained and not boiled, thus confirming the theory or fact of spores."

All the difference from the McEvoy treatment that I practice is this: I dig a deep pit on level ground near the disease apiary, and after getting a fire in the pit, such diseased combs, frames, etc., as are to be burned are burned in this pit in the evening, and then the fresh earth from the pit returned to cover all from sight. Often I use some kerosene oil, a little at a time being poured on old brood-combs, or those having much honey in, as they are hard to burn. If diseased combs with honey in are burned on the surface of the soil, there is great danger; the honey, when heated a little, will run like water on the soil, and in the morning the robber bees will be busy taking home the diseased honey that was not heated enough to kill germs of foul brood.

I also cage the queen while the bees are on the five or six strips of foundation. It helps to keep the colony from deserting the hive and going to other colonies.

R. L. Taylor, Michigan University Experimental Apiary, reports: "The plan that the colony be shaken out into another hive after being allowed to build comb for four days, I have proven, in 100 cases, to be unnecessary."

In Wisconsin, I, too, have cured sev-

eral cases by the one transferring, when honey was not coming in very freely, but it is better, and a great saving of time to both bees and owner, to exchange, in three or four days, those foundation starters, for full sheets of foundation. Diseased brood-combs, and those with honey in, if melted in a sun or solar extractor, the wax, honey or residue is not hot enough to kill germs of foul brood. This I have proven by several experiments. It must be boiled and well stirred while boiling, to be safe.

I do not believe in, or practice, burning any property, such as hives, bees, beeswax or honey, that can be safely treated and saved. Many times it is poor economy to save all, and so many bee-keepers are not so situated as to keep all diseased material from robber bees while taking care of it; the best and only safe way is to burn the diseased combs and frames.

#### Utah.

Utah has county inspectors, and from one who has remarkable success I copy the report of his method of treatment:

"Wherever found it should be dealt with earnestly and with dispatch. If the colony is weak, I recommend smothering the bees, and in order to do this without letting a bee escape, take a tablespoonful of sulphur and place it in the hive entrance of the hives; if there is any breeze, turn the hive so it will blow in the entrance. Then fire the sulphur and it will soon kill the bees. This should be done early in the morning, before any of the bees are flying, as one bee escaping from the hive might carry the disease to any colony with which it may take up its abode. If the colony is a strong one, I would keep the entrance partly closed, so as to prevent any other bees from getting in. Then as soon as fruit blossoms come out so the bees can obtain honey, I treat them. I procure an empty box of any kind, so it is clean, then find the queen, put her in a screen wire cage, which is easily made. Take a small piece of screen, roll it up and tie a string around either end; cork up one end, then place the queen and a few workers, for company, in the cage, and place in the other end cork. Put same in this box, and shake all the bees out of their hive into this box. This must be done in the even-

ing, when no bees are flying. Keep the queen in this box for 24 to 48 hours, allowing the bees to fly in and out as they please. Next take a clean hive, with good, healthy combs or foundation, and shake bees into it, letting the queen go, and they will be free from disease. The old combs are melted into wax, bringing same to a good boil. Often washing with boiling water any hives or implements that might contain disease. Wherever strictly followed, this has effected a cure."—C. Wilcox, Emery Co., Utah.

#### **Pickled Brood.**

Some seasons pickled brood is quite bad among bees, and in a few cases I have known it to reduce large colonies, even large apiaries, to doubtful hopes, but those same colonies, after I gave them treatment, were in a month free from disease. Sometimes it takes as careful handling as if foul brood. I do not believe it is contagious, for all I have seen 60 colonies in one apiary badly reduced by it. As an experiment, one of my out-apiaries had 50 colonies at one time with pickled brood. I treated them, and all were soon free from dead brood. At the same time I took ten of the worst brood-combs, where at least two-thirds of the brood were dead, and placed these combs in other strong, healthy colonies. They at once cleaned out the dead brood, and reared as nice brood as one could ask for.

#### **Symptoms.**

The larval bees (in last of May and through June) show light brown spots; a little later the cappings have small holes in—the cappings are not shrunk-en or dark colored, as in foul brood. The dead bee will be first swollen, with a black head, dried to a hard bunch, and often turned up—China-man-shoe-like. The skin of the dead bee is quite tough, and, if punctured, the thin, watery fluid of the body will flow as freely as water, often a little yellow or brownish colored from the dissolved pollen from the abdomen of the bee. It has very little or no smell; does not at any time stick to the walls of the comb; is easily pulled out of the cell; is never ropy or sticky, and, if the colony is properly cared for, the bees will take care of themselves. Plenty of liquid, unsealed honey and pollen near the brood, and hives so protected as to keep the bees and

brood comfortable on cold days and nights.

Never put bees on old black brood-combs, or those with dead broods in; better make wax of the combs, and give the bees full sheets of brood-comb foundation.

#### **Treatment.**

Keep all colonies strong, with plenty of unsealed honey near the brood, and if hives are properly sheltered, so as to be warm on cold days and nights, there will be little or no pickled brood. If the queen is old, shows signs of weakness by putting several eggs in one brood-cell and nursing several others, so that the brood is patchy, I would kill such a queen, feed the bees a little, and, when queen-cells are started, remove them all and give them a queen and bees, between two of her own brood-combs from a hive where she has lived. I do not think pickled brood is often the fault of the queen, but rather a lack of proper food and heat in the hive. In most cases, a shortage of liquid honey, or moldy pollen, even in hives with plenty of sealed honey in the outer combs. There is a time in spring in Wisconsin, between dandelions and white clover bloom, when there is no honey coming in from flowers, and often cold days and nights, so that the live bees consume the liquid, unsealed honey first, and cluster in a compact body to keep warm; the result often is the larval bee, just changed from the egg to a tender little grub, is either starved, half-fed or chilled, so that it grows slowly, and too often it dies, and then it is we first notice this about the time white clover honey begins to come in. In other parts of the State, where pickled brood appeared it was from the same cause, and at other dates, which was due to a difference of time of honey bloom.

Wherever I fed daily some honey, or even sugar syrup, and kept the hive warm, all dead brood soon disappeared while in the same apiaries other colonies affected and not so treated, continued for some time, but got rid of it as soon as treated.

Strong colonies of bees in the fall, with a young laying queen, and an abundance of good honey, sealed or capped by the bees, if properly cared for during winter, whether in the cellar or in chaff hives, wintered out of

doors in sheltered location, seldom have pickled brood, chilled or other dead brood, or dysentery, and are the colonies that give their owner profit.

#### **Black Brood.**

Black brood is another fatal and contagious disease among bees, affecting the old bees as well as the brood. In 1898, 1899 and 1900, it destroyed several apiaries in New York. Last year I found one case of it in Wisconsin, which was quickly disposed of. Dr. Howard made more than a thousand microscopic examinations, and found it to be a distinct form of bacteria. It is most active in sealed brood. The bees affected continue to grow until they reach the pupa stage, then turn black and die. At this stage there is a sour smell. No decomposition from putrefactive germs in pickled brood. In black brood the dark and rotten mass in time breaks down and settles to lower side-walls of the cell; is of a watery, granulated, syrupy fluid, jelly-like; is not ropy or sticky, as in full brood, and has a peculiar smell, resembling sour, rotten apples. Not even a house fly will set a foot upon it.

#### **Treatment.**

Best time is during a honey-flow, and the modified McEvoy plan, much as I have treated foul brood, by caging the queen five days, remove the foundation starters, and giving full sheets, keeping queen caged five days longer. As great care should be taken of diseased hives, combs, honey, etc., as in foul brood.

#### **Dysentery.**

Dysentery among bees in Wisconsin in the spring of the year is often quite serious. Many colonies die with it. Dysentery is the excrements of the old bees; it is of brownish color, quite sticky, and very disagreeable smelling, and is sometimes mistaken for foul brood.

#### **Causes.**

1. Bees confined too long in the hives, so that they can no longer withhold their excrements, and are compelled to void the same on the other bees and combs.

2. Poor winter stores, gathered in the fall from honey-dew, cider mills, sorghum mills, rotten fruit; also some kinds of fall flowers.

3. Old and especially moldy pollen or bee-bread.

4. Hives too cold or damp. If moisture from the breath of the bees is not carried out of the hive by some means, such as through a deep cushion of some kind over the bees that will absorb moisture and at the same time retain the heat, or by some means of ventilation, so that all is dry and comfortable. If mold forms on the combs or cellar is so damp as to form mold, there is great danger the bees will have dysentery and die.

#### **Treatment.**

1. First of all, have an abundance of combs of sealed clover or basswood honey in brood-frames carefully saved, and see that each colony is wintered on such food. Three or four such combs will winter a fair colony safely, if confined on those combs late in the fall, and the hive contracted to fit the same. This is one of the most important conditions for success in wintering.

2. If in the fall the bees have gathered this unwholesome honey from the above named sources, it should all be extracted and either exchanged for those honey-combs, or feed the bees good honey or sugar syrup until winter stores are secured. This should be done before cold weather in the fall.

3. Hives contracted and made comfortable, whether in cellar or outdoors.

4. If wintered in chaff hives outdoors, with feed as above directed, and there come one or two warm spells during winter, so that the bees can have a cleansing flight, they will not have dysentery or dead brood, and will be much stronger when clover opens.

If wintered in the cellar, the bees will not need so much honey, and if the winters are generally long, with doubtful warm spells, the cellar will be best. But to keep the bees from dysentery, so often fatal to cellar-wintered bees, they should have such winter stores as above spoken of, then the cellar kept at a uniform temperature, about 42 deg. F., ventilated so the air is fresh, and no mold will form in the cellar. Fresh air-slaked lime on the bottom of the cellar may help, if it is damp or has poor air.

5. Dysentery will not appear if bees are kept on sugar syrup, or best grade white clover or basswood honey, and are in a dry place, either sheltered by cellar or chaff-hive.



C. P. DADANT, President.

**PROCEEDINGS**  
OF THE  
**TWENTIETH ANNUAL SESSION**  
OF THE  
**Illinois State Bee-Keepers' Association**  
**NOVEMBER 17 AND 18, 1910,**  
**AT THE STATE HOUSE.**

The meeting was called to order by the Fourth Vice-President, W. B. Moore, at 10 a. m., November 17, 1910. Prayer was offered by George W. York, of Chicago.

The Secretary, Mr. James A. Stone, announced that Mr. C. P. Dadant, President, would not be able to attend the Convention on account of illness.

Mr. York—Mr. Chairman, at this

point I would like to move that the Secretary be instructed to send a telegram to our President, expressing our regret on account of his absence.

The motion was seconded and carried.

Pres. Moore—The first in order of business are the minutes of the last meeting.

Mr. Stone—There were some things

that we want to bring up in the minutes of the last meeting so I will read them:

#### MINUTES OF LAST MEETING.

The meeting was called to order by Vice President A. L. Kildow, at 10 a. m., November 18, 1909.

The meeting was opened by prayer by George W. York, of Chicago. A membership of twenty-five were present at the opening of the meeting.

Reading of minutes of last meeting was dispensed with.

Secretary's report was read and approved.

Mr. Dadant moved that a committee be appointed to act on the resolutions recommended in the Secretary's report. The Chair appointed: C. P. Dadant, J. W. Bowen, and W. H. Hyde, as such Committee on Resolutions.

The Treasurer read his report, which was referred to the Auditing Committee to be appointed.

The Auditing Committee was then appointed by the Chair as follows: W. B. Moore, I. E. Pyles and Louis Werner.

The Secretary's financial report was then read and referred to the Auditing Committee.

Report of the Legislative Committee for the previous year was called for and the Secretary, acting as Chairman of the same, gave a verbal report.

A recess was taken until 1:30 p. m.

At 1:30 p. m. President Kildow called the meeting to order.

A paper on European Foul Brood by Dr. Miller was read by Mr. York.

Dr. Bohrer gave an address on the necessity of Foul Brood law for all the States.

The candidates named for Foul Brood Inspectors were: Aaron Coppin, W. B. Moore, A. L. Kildow and Frank Hinderer, to be voted on later.

Motion by Mr. Bowen that a Legislative Committee of 12 be appointed, to be elected by ballot. Motion carried. Committee to be elected at next session.

Adjourned at 5:30 to meet again at 7:30 p. m. for a night session.

Meeting called to order at 7:30.

Committee on Resolutions reported the following:

Resolution on the death of our late President, J. Q. Smith, was read and ordered to be placed in our report and copies be sent to the family.

A resolution asking for more space at the State Fair for the honey exhibit was read and approved, and a copy ordered sent to Secretary Dickirson, which was sent December 3d.

A resolution asking that the Premium List be changed in several points named; also to be sent to the Secretary of the State Board of Agriculture.

Resolutions tendering the thanks of the Association to Mr. York for the use of his mailing list in sending out matters of interest to the Association.

These resolutions were all acted upon, approved and adopted. The committee were C. P. Dadant, J. W. Bowen and W. H. Hyde, as named previously.

Adjourned to meet at 9 a. m. next day.

9 a. m. Second Day: Motion to proceed to the election of a Foul Brood Inspector carried.

Motion prevailed that after the second ballot the lowest one was to be dropped.

Mr. A. L. Kildow was elected on first ballot, having received a majority of the votes.

The convention then proceeded to vote for the officers of the Association for the ensuing year.

The Secretary was instructed to cast the ballot for C. P. Dadant for President for the ensuing year.

Proceeded to ballot for five Vice Presidents with the following results: 1st, Aaron Coppin; 2d, J. W. Bowen; 3d, Louis Werner; 4th, W. B. Moore, and 5th, I. E. Pyles.

Voted that the President, cast the ballot for J. A. Stone for Secretary, salary placed at \$75.00; the salary of the Treasurer placed at \$25.00.

The Secretary was instructed to cast the ballot for Charles Becker for Treasurer.

Committee on Legislation as follows: C. P. Dadant, James A. Stone, Charles Becker, J. W. Bowen, A. L. Kildow, George W. York, Louis Werner, John Bamberger, W. H. Hyde and I. E. Pyles.

Committee was called to order and elected C. P. Dadant, Chairman, and J. A. Stone, Secretary, of the committee.

Motion prevailed to appoint a committee of 3 to lay out the work, whereupon Messrs. York, Becker and Stone were appointed such committee.

On motion the meeting adjourned sine die.

Pres. Moore—You have all heard the minutes of the last meeting, are there any alterations? If not they will stand approved. I so declare them.

Pres. Moore—The next in order is the President's Address; we will omit that under the circumstances.

Pres. Moore—We will now have the secretary's report:

#### SECRETARY'S REPORT FOR 1910.

Last year our report showed that the membership in the association was the largest we have ever had—256.

Even our President remarked last year at the meeting that as the year had been a failure, our membership would be apt to be cut down for the year 1910. We are happy to say our record of growth has made good, with a membership of 286, a gain of just 30 over last year.

Those joining the State Association direct were ..... 177

Those joining through the Chicago Northwestern were..... 86

Those joining through the Northern Illinois and Southern Wisconsin were ..... 17

Those joining through the Western Illinois were ..... 6

Total..... 286



We had 300 copies of our last Annual Report in cloth for the members of the Association, and 100 paper bound. The supply of the cloth-bound is about exhausted, and for the paper bound there is but little call. Several Libraries have made a call for the Reports and ask to be placed on our mailing list.

They are as follows:

1. University of Illinois Library  
..... Vols. 1-9
2. New York State Library  
..... Vols. 1-9
3. Ontario Agricultural College  
..... Vols. 1-9
4. Bureau of Entomology, Washington, D. C. .... Vols. 1-9
5. The John Crerar Library, Chicago ..... Vols. 1-9
6. Illinois State Historical Library  
..... Vols. 1-9
7. Illinois State Library.. Vols. 1-9

Others were sent (at their request) to editors and professors.

Some of the States are asking for our Code of Rules for judging honey at Fairs. The Nebraska State Board of Agriculture asked for them through their Secretary, W. R. Mellor. The State Fair of Oklahoma have made the same request through their Secretary, Mr. I. S. Mahan.

When these different States begin to copy our Code of Rules it shows us the importance of having them pretty well up to date, and have them correct, and I make one suggestion regarding this later in my report.

In other States individuals have asked for our rules, saying their State was going to use the Code of Rules adopted by the Illinois State Beekeepers' Association.

A syrup company in Oakland, California, wrote us to know what it would cost them to get the receipt from our Association for "Canning Fruit with Honey—Can What You Can." They understood we had a newspaper clipping of it, and said, "Tell us how much the postage would be to get it, and we will advance it." We answered that it was the property of the Illinois Beekeepers' Association, and could only be gotten by paying the \$1.00 membership fee, when they would get the receipt on the 104th page of the report that would be sent to them. The next mail from them enclosed \$1.00.

The reason I named the page was, when I came to investigate, after get-

ting their letter, I began to think probably we did not have it in our Report; I knew I had gone over it in reading the proof, but I found, in making out the Index, I had in some way failed to put it in. It is on the 104th page, under Louis C. Dadant's picture.

But since then we have clipped through Gleanings a revision of the same receipts that we think is better, as the one given in our Report contains too much honey to the amount of fruit. My wife has tried some of them and thinks the proportion of honey too large.

Mr. York—Is it written by the same lady who wrote the other article?

Mr. Stone—Yes, it is the same person; she revised the former receipt.

Mr. York—Her name is Mrs. H. K. Board, of Pennsylvania.

We have received—Mr. Stone continuing to read report)—several letters from the World's Panama Exposition which read as follows:

World's Panama Exposition Company,  
New Orleans, La.

July 6, 1910.

Illinois State Bee Keepers Association,  
Springfield, Ill.:

Gentlemen—As you probably know, New Orleans and San Francisco are rival contestants for congressional recognition as the logical point at which to celebrate the completion of the Panama Canal with a great World's Panama Exposition in 1915, and the matter will be settled at the December session of Congress.

Over 60,000,000 people reside within a radius of 1,000 miles from New Orleans, while in the same radius from Frisco there are only 6,000,000 people. The average railroad fare to New Orleans for over 75 per cent of the people of this country to visit an Exposition here will be \$12.50 as against \$37.50 to Frisco; and because of its geographical location with reference to the center of population in the U. S., also its proximity to the Panama Canal, New Orleans is the only logical point for an exposition celebrating the completion of that great American achievement.

Your own State will be greatly benefited, both directly and indirectly, by an exposition held in New Orleans. It will mean great things for the Mississippi Valley and the South, whereas any benefits resultant from an exposition held in San Francisco will be confined entirely to the Pacific Coast.

An endorsement by your organization of New Orleans as the logical point will have much weight, and we are going to need every possible influence in Congress in December when the selection of a site comes up. May we, therefore, ask you to please consider and act favorably upon the enclosed form of resolution at your next meeting?

Thanking you in advance for such ac-

tion, and for your kind reply, we beg to remain,

Very truly yours,  
(Signed) NORMAN WALKER,

Chairman, Committee on Meetings and Conventions.  
NW-JGB.

Mr. Stone—Later we received another letter just like this. We should have answered it but we let it go unanswered until we got another letter like it, and then we got the following letter still later:

World's Panama Exposition Company,  
New Orleans Logical Point, Hub of the Western Hemisphere, 1915.

New Orleans, Oct. 1, 1910.

Illinois State Bee Keepers Association,  
Springfield, Ill.:

My Dear Sir—We have already addressed you two communications in regard to our proposed World's Panama Exposition, to be held in New Orleans in 1915, soliciting at the hands of your organization the adoption of a resolution endorsing the Crescent City as the "Logical Point" for this celebration.

The time is drawing near when Congress will decide this momentous question and the presentation of these resolutions will be an important factor in our favor.

May we not ask your organization to adopt resolutions favoring the Crescent City, and thus add to our strength?

Soliciting your prompt attention and early advice, we beg to remain,

Yours very truly,

(Signed) NORMAN WALKER,  
Chairman, Committee on Meetings and Conventions.  
O'S-FHL.

Mr. Stone—Shall I read this resolution?

Pres. Moore—I think it would be well to take that up a little later.

Mr. Stone—If there is a Committee appointed to act on this they can have the resolution.

Mr. Diebold—Have they prepared resolutions for us to pass on?

Pres. Moore—Yes, they sent a copy of the resolution they would like to have us pass.

Mr. Stone reads the resolution, as follows:

#### Resolution 1.

Whereas, The Officials and Engineers in charge of the construction of the Panama Canal have announced that it will be completed and open for Commerce in 1915; and

Whereas, Practically the unanimous sentiment of the President of the United States and other officials, the members of Congress and the American people generally, is that no celebration of the completion of the Canal can produce such important and beneficial results as the holding of an exposition, where the people of the world will be brought closer together

through this union of the Atlantic and Pacific, the East and West, and will meet and confer with each other and exhibit the resources and products of their several countries; be it

Resolved, That we cordially approve the idea of a World's Panama Exposition and pledge it our moral support and assistance; be it further

Resolved, That we see in New Orleans the "logical point" for such Exposition by reason of its proximity to the Canal and because it is the gateway for a large part of the import and export commerce of these United States with the countries south of us and with the World, easily reached from all points in this Continent, North, Central and South America; in all respects situated to hold a great World's Exposition, and we therefore endorse New Orleans as the best point at which to hold the World's Panama Exposition, in honor of the completion of the Canal.

Mr. Stone, Secretary, continuing to read report:

We sent out 1200 blank applications for membership early in the year, using the mailing list of the American Bee Journal, through the kindness and assistance of its editor, Mr. York. His list had about 900 bee keepers' names in this State. Then comparing our own list with it we found 300 more names not on his list, which made up the 1200.

Since we have followed this plan of increasing our membership, it seems to be growing larger each year, though there is a good deal of tedious work in comparing lists of names. But it takes work to win, and if our gain next year equals this, we will pass the 300 mark in membership.

We also sent out 1,200 blank petitions to the legislature for a Foul Brood Law, and up to date have received back signed petitions from 23 districts out of the 51; total number of signers, 376. We ought to have 3,000.

District 35 took the lead with 59.

A call came from our foul brood inspector for more blank petitions and we had a second thousand printed.

We must not fail to give credit to our foul brood inspector and his assistants for adding several members each to our list; one of them as many as 7 or 8.

This morning (Nov. 17, 1910) we got in a list of 20 names; these do not count in our membership for this year; it would put our membership up to almost 300 if it counted for this year; this gives us a good start for next year.

At our last convention a picture of the members in attendance was solic-

ited by an artist who assured us a good job. He showed a negative copy of it; took a good many orders, and failed to deliver the pictures. When we began to doubt his responsibility we were induced to secure one copy and from it have the picture in the Report, so that we would not be entirely cheated out of our picture.

I will say right here that we have made arrangements with an artist upon whom we can depend, and he will come directly after dinner, if agreeable to the convention, to take our picture; we had better take action upon this, this morning.

We were considerably troubled last year to get the names of the members of whom we were not sure, but succeeded in getting all right but one (No. 17.) We were obliged to send the list around to several different parties, to ask them to name those in the picture. Mr. York named those he could, and I sent it to three others.

If it be the voice of the meeting we will have the picture in the next Report; we will be careful to get the names before adjournment.

Our last Annual Report cost us \$1.01 per copy, and so much complaint has been made, as to affiliating societies getting their members in for 25 cents each, and our State members direct must pay 50 cents, and all get the same Report; and the 25 cent members for their one dollar get membership in three societies, that the question then comes with a double header: Where is the justice in it? And how long will the State association last at that rate?

The members of our Executive Committee who were present at our State Fair decided that a change in our constitution must necessarily be made in regard to affiliating societies. Therefore we gave 30 days' notice of the same when our cards were sent out giving notice of this meeting.

The President of the National (Mr. George W. York) at Albany delivered as fine an address as we ever listened to, and in it spoke of the good that the National was doing, and how much more good it might do if it was not handicapped for want of means to do more in the way of advertising the honey for sale, and the honey wanted by members of the National.

At the close of the address the convention (a crowded hall at all ses-

sions) was so enthused that all kinds of propositions were named, and resulted in a committee being appointed to act upon the President's address.

The committee will recommend to come before the next meeting of the National that the fees for membership in the National be raised to \$1.00, the same for affiliating societies joining as for direct members.

This will necessitate a change in our fees to the State Association at our next Annual meeting. The change could not be made at the National meeting in October for the reason that 45 days notice had to be given before the election, and it was then only 30 days until the election, which you all know comes in November, and is by postal card.

We recommend that some action be taken as to the delegates coming to our convention from affiliating societies. Our Association, three years ago, voted that their railroad fare be paid them, which has been done since then, and on one occasion a delegate came, collecting his fees, and went home without even opening his mouth in the convention. Perhaps he could not talk. Then let him learn or stay at home.

The object of this move was to insure a good program, and we who pay our own way have a right to expect help from those whose railroad fares are paid. Again, on this subject, should we have a limit of the member or members of a society to entitle them to a delegate? Cases have been where the delegate drew out more than his local association put in. Why not have it the rule to pay railroad fare not to exceed the amount that comes from their affiliation?

I give these to you as suggestions that you may act upon them if you see fit.

We would like to have the sense of this convention as to a time limit on our Reports. For example: When our Reports are printed and sent out we keep on all summer sending out Reports to each and all who send in their fees. If a bee-keeper joins in June or later he gets the last Report, and his year runs on by the time of issuing the next year's report, and he gets that—two Reports for one fee. That does not serve the member right who sends in his fee at the be-

ginning of the year, for he only gets one Report, unless he renews his membership.

In our Code of Rules for judging honey at Fairs, on page 14 of last report, should not the latter clause of remark 4 be stricken out? I will read the entire clause:

4. By Style is meant neatness of the sections, freedom from propolis, etc. Under this head may also be considered the size of the section. The  $4\frac{1}{4} \times 4\frac{1}{4}$  being the standard, should take the preference over all others, and  $1\frac{1}{8}$  to 2 inches in width over narrow ones.

This is in regard to the size and dimension of sections. I think we had better act upon this during the meeting here.

JAS. A. STONE, Sec.

Mr. Moore—I move that the report be adopted as read. (Seconded and carried.)

Mr. Moore—The next thing is the Treasurer's Report.

Mr. Becker, the Treasurer, read his report, as follows:

#### TREASURER'S REPORT.

##### Chas. Becker In Account with Illinois State Bee-Keepers' Association.

	Dr.	Cr.
1909.		
Nov. 17. To balance on hand.....	\$ 69 69	
Nov. 22. To fees turned in by Secretary.....	89 00	
Dec. 13. To J. A. Stone (per L. C. Dadant) 52 fees.....	13 00	
	\$ 171 69	
Nov. 27. By salary to Secretary Stone.....		\$ 75 00
1910		
Nov. 16. By balance .....		96 69
		\$ 171 69
Nov. 16. To balance on hand.....	\$ 96 69	

##### Chas. Becker, Treasurer, in Account with Illinois State Bee-Keepers' Association—State Fund.

	Dr.	Cr.
1909.		
Nov. 17. To Balance on hand (forward).....	\$ 1,368 69	
1910.		
July 19. To warrant on State Treasurer.....	1,000 00	
	\$ 2,368 69	
1909.		
Nov. 22. By credit (forward from page 85).....		\$ 128 02
Nov. 22. By Treasurer Becker, expense of bond.....		15 00
1910.		
Jan. 29. By Miss Stewart (report two meetings).....		160 00
Jan. 29. By Geo. W. York, printing 1200 letters, etc.....		36 90
May 9. By Ill. State Register for 400 reports.....		245 75
July 6. By A. L. Kildow, 10 days inspection and expenses...		53 10
July 27. By I. E. Pyles, $9\frac{1}{2}$ days inspection and expenses....		59 16
July 27. By A. L. Kildow, 9 days inspection and expenses...		52 67
Aug. 9. By A. L. Kildow, 6 days inspection and expenses....		36 80
Aug. 9. By I. E. Pyles, 9 days inspection and expenses.....		58 18
Aug. 19. By Frank Hinderer, inspection and expenses.....		39 25
Sept. 2. By A. L. Kildow, 9 days inspection and expenses...		52 36
Sept. 2. By Chas. Becker, 10 days inspection and expenses..		61 26
Sept. 10. By I. E. Pyles, 14 days inspection and expenses....		84 31
Sept. 10. By W. B. Moore, 10 days inspection and expenses...		62 96
Sept. 22. By A. L. Kildow, 3 days inspection and expenses...		17 13
Sept. 22. By Chas. Becker, 3 days inspection and expenses...		17 54
Oct. 10. By Louis Werner, 9 days inspection and expenses...		45 00
Nov. 3. By Aaron Coppin, 5 days inspection and expenses...		27 50
Nov. 3. By F. Hinderer, 4 days inspection and expenses....		25 44
Nov. 16. By balance .....		1,090 36
		\$ 2,368 69
Nov. 16. To balance on hand.....	\$ 1,090 36	
	96 69	
Total balance .....	\$ 1,187 05	

Pres. Moore—You have now heard the Treasurer's report, what shall be done with it? Do you want to appoint an Auditing Committee?

Mr. Kildow—I move that an audit-

ing committee be appointed, and that the report be referred to that Committee.

This motion was second by Mr. Diebold and carried.

Pres. Moore—I will appoint Mr. York, Mr. Bowen and Mr. Pyles as the Auditing Committee.

Pres. Moore—We will now have the financial report from the Secretary, Mr. Stone.

Mr. Bowen—I move that this report be referred to the Auditing Committee.

Mr. Stone—If I read this report here, the meeting will get placed before them an itemized account of what they are spending money for.

Mr. Bowen—Do you mean to say that the Treasurer does not know about the matter you refer to in this report?

Mr. Stone—No, sir; not until the end of the year.

Mr. Bowen—Very well, then you had better read it.

Pres. Moore—The Secretary pays the moneys out of current funds as he gets them in, and charges them to account.

Mr. Stone—I could advance nearly \$100 to run the expenses, and turn the money over to the Treasurer and make demand for money 40 times a year. I spoke of that in session once, and said that if it were demanded of me, that I turn in the money as soon as I get it, I would not act as Secretary.

Mr. Diebold—If there is any balance left after you pay the bills you turn it over to the Treasurer, according to my way of thinking.

Mr. Stone reads Sec. financial report as follows:

#### SECRETARY'S REPORT.

##### Secretary Stone in Account with State Association.

	Dr.	Cr.
1909.		
Dec. 13. To Louis C. Dadant (52 fees).....	\$ 13 00	
1910.		
Jan. 22. To Louis C. Dadant (8 fees).....	2 00	
Feb. 23. To Louis C. Dadant (7 fees).....	1 75	
Nov. 16. To Louis C. Dadant, (during year 19 fees).....	4 75	
Nov. 16. To 150 fees to State Association during year.....	150 00	
Nov. 16. To W. B. Moore, 6 fees from W. Ill.....	1 50	
Nov. 16. To B. Kennedy, 17 fees from N. Ill.....	4 25	
	\$ 177 25	
1909.		
Dec. 13. By 52 fees turned in to Becker.....		\$ 13 00
1910.		
Nov. 16. By 150 fees turned over to N. E. France.....		75 00
Nov. 16. By balance .....		89 25
		\$ 177 25
Nov. 16. To balance on hand.....	\$ 89 25	
1909.		
Nov. 18. By typewriter to copy report.....	\$	65
Nov. 18. By bank for exchange.....		15
Nov. 30. By letter heads, envelopes and printing .....		7 54
Dec. 14. By postage .....		2 50
1910.		
Jan. 13. By 1200 petitions and printing same.....		6 50
Jan. 18. By express on copy and cuts.....		1 05
Mch. 23. By postage .....		2 25
April 12. By roll book for new members and sundries.....		1 60
April 21. By 250 manilla envelopes to send report.....		3 00
April 23. By postage to send reports.....		26 00
July 6. By 500 stamped envelopes.....		10 62
Aug. 4. By 1000 more petitions ordered by President... ..		6 50
Oct. 29. By postage .....		3 00
Oct. 31. By badges for convention .....		9 08
Nov. 8. By 500 postal notices and postage.....		3 15
Nov. 15. By typewriting .....		90
Nov. 16. To balance .....	\$ 84 49	
		\$ 84 49
Nov. 16. By balance credit.....		\$ 84 49

Pres. Moore—Are there any remarks?

Mr. Bowen—I move that it be referred to the Auditing Committee.

Motion was seconded by Mr. Diebold and carried.

Mr. Bowen—I may be intruding a little now, but I think there is a way to do this; there are business methods for governing everything. I don't question but what Mr. Stone has paid out and accounted for what he has

collected, but it is my understanding that it should be the duty of the Secretary to report all these moneys to the Treasurer.

Mr. Stone—I pay them over at the end of the year.

Mr. Bowen—But the Treasurer should do the paying by order of the Executive Committee. I don't question but what it is all right, but not according to rule.

Pres. Moore—The proper way to handle this is, as the money comes in Mr. Stone can use it for expenses; there should be an order drawn on the Treasurer for the amount he pays out, and the Treasurer should give him a receipt.

Mr. Stone—That is the way it is done, and the President signs the order.

Mr. Kildow—It is also necessary to turn over the receipted bills to the Treasurer; he may accept them as just so much cash.

Mr. York—When the Secretary buys 25 cents worth of stamps he can't get a receipt; that is too small business.

Mr. Moore—By handling everything in that way it keeps everything according to business form—making an order for the entire amount.

Mr. Bowen—He should have a warrant from the Treasurer for everything that he pays out; otherwise you will get yourself in a tangle.

Mr. Bowen—I move that it be referred to the Auditing Committee, and they will straighten it out.

Mr. Moore—Was there not a Legislative Committee of twelve appointed last year?

Mr. Stone—Yes, Mr. Dadant is President of that.

Mr. Moore—You are the Secretary, Mr. Stone?

Mr. Stone—A motion prevailed for a Committee of three to lay out the work; whereupon Messrs. York, Becker and Stone were appointed.

Mr. Moore—That was a sub-committee of the Legislative Committee. That sub-committee reports to the Legislative Committee as a whole, and they report to this Association; of course we all know what the Legislative Committee did.

Mr. Stone—A committee of three was appointed to lay out the work; when Mr. Bowen made that motion, if you will remember, before this con-

vention, it was just before the Committee was elected; the Secretary said that we had been in the habit of sending out 1,000 blanks for membership fees; and it was thought by the Secretary a good thing to send with the membership blanks a petition for signers—the same as the petition we had previously sent out—and we decided to send out these petitions for signatures, at the same time that the membership blanks were sent out, and let them do the work—and then send a number—a dozen or so copies of these blanks to each of this Committee of twelve and let them do their work in circulating them—and we found during the year that they did not circulate the petitions as well as some of those not on the committee.

Our largest petition was sent in by one of the members of the committee, but nearly as large were sent in by persons that just happened to get the list through the mail with their blank application for membership, and, on account of that, that committee ceased to do anything. That is all the explanation we have, Mr. President.

Mr. Diebold—As I understand it, those petitions were for bee-keepers to sign to induce the Legislature to pass a Foul Brood law.

Mr. Pyles—Does the Secretary know how many names have been sent in on these petitions from that committee?

Mr. Stone—I gave the number in my report. Something over 376; we ought to have had 3,000.

Pres. Moore—That is a very important thing, to get plenty of signatures on those petitions. It has considerable bearing upon the members of the Legislature when we go before them for that law.

Mr. Pyles—I have a list to send in, but I understand that it is not necessary that I should send it in until just before the Legislature meets.

Mr. Stone—The only trouble is, that in laying it aside you often forget to send it in at all. There was one oversight in sending out this petition—there was nothing said about where to send it. On the blank for membership it spoke about signing this petition and sending it in with the fee—but it did not say on the petition where to send it.

Mr. Pyles—Mr. Stone, in circulating these petitions, those that I gave out



and sent out, I told them to send it to Mr. Stone, or to me, and I would forward any that were sent to me, to Mr. Stone. I said this to all the people with whom I left the petition for circulation. I think there will be a great many come in before it is time to use them. By some time in December, anyhow, you will, I believe, receive a great many of these petitions.

Pres. Moore—I think a great many more will be heard from. Mr. Stone will, no doubt, receive a great many more of these petitions.

Mr. Stone—Was there a Resolution Committee appointed? There ought to be one to act on this Panama Exposition, and other things.

Pres. Moore—Will somebody make a motion to that effect?

Mr. York—I move that a Resolution Committee of three (3) be appointed. Motion was seconded and carried.

Pres. Moore—I will take that under advisement and appoint a committee immediately after dinner.

Mr. Stone—Maybe you will not be in the chair after dinner. I see two Vice-Presidents that outrank you are now here.

A Member—There comes a senior now.

Pres. Moore—We will leave that, then, to the acting Chairman after dinner.

Pres. Moore—Any other committees?

Mr. Stone—Mr. President, allow me, before you adjourn, to state that we had better, after we think the members are all here that will be here, decide whether we will have our pictures taken, as last year, and have the artist here the first thing after dinner. I am in favor of having this picture taken and having it put in our Report. I believe a good many will want that Report just to get their picture.

Mr. York—I was going to ask whether or not it would be better to have the picture taken on the second day of the convention; would we not have a larger attendance on the second day? If so, why not have the picture taken tomorrow afternoon, or, rather, tomorrow forenoon, just before we adjourn? If a number of those present here today will not attend tomorrow, we would better have the picture taken today.

Motion was made and carried that the picture be taken tomorrow (Nov. 18, 1910) just before dinner.

Dr. Bohrer—I have had a number of letters from parties in Illinois and other States, concerning yellow sweet clover seed. I brought a small box of it here, and all members who have not anything of this kind, and who would like to have a little of this seed, will you not go to the Secretary and get some of it? Take home a teaspoonful of it—sow it in your garden and transplant it. If you sow it in February, it will grow, but won't bloom until the next year. The seed is free, so call on the Secretary for as much as you desire.

Mr. Diebold—If sown in February, in this cold climate, will it bloom next spring?

Dr. Bohrer—No, it will grow, but will not bloom until the year following.

Mr. Siebold—I would like to know what species it is.

Dr. Bohrer—It is yellow sweet clover. It does not grow as tall as the white. It is about two or three weeks earlier than the white. I think the yellow sweet clover is very desirable where you have sweet clover at all.

Mr. York—I would like to call a meeting of the Auditing Committee at once, after adjournment.

Motion to adjourn until one o'clock was seconded and carried.

The convention then adjourned to meet at one o'clock p. m.

#### AFTERNOON SESSION.

The convention met at one o'clock p. m., as per adjournment, with Vice-President Moore in the chair.

Pres. Moore—Mr. Coppin, the 1st Vice-President, is here. I will ask him to take the chair this afternoon.

Mr. Coppin—I would rather be excused, and have Mr. Bowen fill the chair. We drew straws, and I believe I got the wrong straw. I think he is better qualified to fill the chair.

Mr. Bowen—Of course, Mr. Coppin being the 1st Vice-President, I would rather have him fill the chair; I have not looked after the order of business, but I will do the best I can for you.

Mr. Bowen, 2d Vice-President, takes the chair.

Pres. Bowen—I am informed the next thing in order will be unfinished business.

Mr. Stone—The last thing before dinner a motion was made that a com-

mittee of three be appointed by the chair on resolutions.

Pres. Bowen—I would appoint on that committee, Mr. Moore, Mr. Pyles and Mr. York.

Mr. Stone—There are quite a number of committees, it seems to me, ought to be appointed. I guess all these things will go before the Resolution Committee, though; it may be that the Resolution Committee can take up all these matters that were suggested in the Secretary's report.

Mr. York—I would suggest that all matters that the Secretary speaks of be referred to this Resolution Committee, and that this committee report tomorrow morning, and then we can act upon these various matters at that time.

Pres. Bowen—If there is no objection, that will be the sense of the meeting.

Mr. Pyles—I would suggest another thing, and that is, that if there is anything that anybody wants a resolution on—anything that they would like brought before this convention—that that person present it in writing, making suggestions as to what is desired, and we will try to take these suggestions up in order.

Pres. Bowen—Is there any one here who wishes to join the convention, that has not already done so? If so, now is the time to hand your money to the Secretary—now is the time to pay your money and get a badge.

Pres. Bowen—The next thing in order is miscellaneous business. Is there any one who has anything to offer at the present time?

Mr. Stone—There are two papers here from Dr. Bohrer—one on European Foul Brood, and one for an Act to go to the Legislature, I would think, from the looks of it. Is that what it is, Dr. Bohrer?

Dr. Bohrer—The Bill is one to be suggested to the Legislative Committee by the Illinois State Bee-Keepers' Association. I think it would be well for the bee-keepers of the Illinois State Bee-Keepers' Association present to look over this Bill, and if it is what you want, to refer it to the Committee on Legislation, and I wish to keep this bill, they can make a copy of it; I want to take the Bill back with me to Topeka; our State Convention meets next week. We want to try to adopt

something of that kind there. We have a Foul Brood law but it is not satisfactory. And as to the paper I have written, whenever it is proper for subjects of that kind to be brought before the convention, it is at your disposal.

Pres. Bowen—If there is no objection the Secretary will read the Bill.

Dr. Bohrer—I now happen to be afflicted with a cataract, and I could not see what I was writing. If there are any errors you will have to straighten them out. I could hardly see the letters on my typewriter.

Secretary Stone reads as follows:

### Foul Brood Bill Just Passed in Kansas.

An Act for the Suppression of Contagious or Infectious Diseases Among Bees in the State of Kansas.

Be it enacted by the Legislature of the State of Kansas:

Section 1. In addition to the duties heretofore assigned to it, the State Entomological Commission is hereby directed and authorized to appoint one or more competent assistants when required, who shall be designated as "inspector of apiaries," and whose duty it shall be under the direction of said commission to inspect all apiaries, bees and hives for the purpose of detecting and destroying infection or disease in and among said apiaries, bees and hives.

Sec. 2. Said assistants under the direction of said commission when notified by the owner of any apiaries or bee keepers, or by any three disinterested taxpayers, of infection or disease of any kind, shall examine all such reported apiaries, and all others in the same locality not reported and ascertain whether or not the disease known as American foul brood, or European foul brood or any other disease, which is infectious or contagious in its nature and injurious to honey-bees in their egg, larval, pupal or adult stages, exists in such apiaries or among such bees, and if satisfied of the existence of any such disease, shall give the owner or caretaker of the diseased infected apiaries and bees, full instructions for treating such cases as in the inspector's judgment seems best or treat the ailment himself in case it may seem best for the successful treatment and stamping out of said infection and disease.

Sec. 3. Said assistants under the direction of said commission shall visit all infected apiaries and bees a second time in case the work of stamping out the disease was not contemplated on his first visit, within ten days thereafter, and if need be burn all colonies of bees that he may find not cured of such disease and all honey and appliances which would spread the disease, without compensation to the owner or the lessee thereof.

Sec. 4. It shall be unlawful for the owner of any apiaries, bees, honey or appliances wherein disease and infection ex-



ists to sell, barter, or give away or move without the consent of the inspector herein provided for, any diseased bees (be they queens or workers), colonies, honey or appliances or expose other bees to the danger of such disease or fail or neglect to notify the inspector of the existence of such disease.

Sec. 5. For the enforcement of the provision of this act the said State Entomological Commission or its duly authorized assistants shall have access, ingress and egress, to all apiaries or places where bees are kept, and it shall be unlawful for any person or persons to resist, impede or hinder in any way said commission or its assistants in the discharge of their duties under the provision of this act.

Sec. 6. After inspecting infected hives or fixtures or handling diseased bees, said commission or its assistants shall before leaving the premises or proceeding to any other apiaries, thoroughly disinfect any portion of their own person and clothing and any tools or appliances used by them which have come in contact with infected material and any assistant or assistants with him shall likewise thoroughly disinfect their persons, clothing or any tools which they have used.

Sec. 7. It shall be the duty of any person in the state of Kansas engaged in the rearing of queen-bees for sale, to use honey that been boiled not less than thirty minutes in making candy to be used in shipping queens. Any such persons engaged in the rearing of queen-bees, for sale, shall have his queen-bee rearing apiary or apiaries inspected twice during each summer season, and upon the discovery of the existence of any disease which is infectious or contagious in its nature and injurious to bees in their egg larval, pupal or adult stages, said person shall at once cease to ship queen bees from such diseased apiaries until the said commission or its assistants shall declare such apiary free from all disease and infection.

Sec. 8. The Entomological Commission shall make annual reports to the governor giving the number of apiaries inspected, the number of diseased and infected apiaries found, the number of colonies treated and also the number of colonies destroyed and the expenses incurred in the performance of this duty. It shall also keep a careful record of the localities where disease exists and said record shall be open to the public inspection.

Sec. 9. Any person or persons violating or failing to comply with the provision of this act shall upon conviction be fined in a sum not less than five dollars nor more than one hundred dollars or imprisonment not exceeding thirty days or both imprisonment and fine.

Sec. 10. The sum of five hundred dollars for the fiscal year beginning July 1st, 1911, and the sum of five hundred dollars for the fiscal year beginning July 1st, 1912, or so much thereof as may be necessary, is hereby appropriated out of any funds in the general fund not otherwise appropriated, to carry out the provisions of this act, on vouchers certified to by the State Entomological Commission, for the sup-

pression and stamping out of contagious and infectious diseases among bees within this state according to the provisions of this act. The compensation of the assistants provided for herein shall be determined by the State Entomological Commission, but shall not exceed five dollars per day and their actual expenses incurred in the performance of their duties.

Sec. 11. Chapter 11, of the Session Laws of 1909, and all acts and parts of acts in conflict herewith are hereby repealed.

Sec. 12. This act shall take effect and be in force from and after its publication in the official state paper.

Mr. Speaker—Your Committee on Ways and Means, to whom was referred House Bill No. 366, have had the same under consideration, and instruct me to report the bill back to the House with the recommendation that it be passed.

J. H. MERCER, Chairman.

Dr. Bohrer—I don't claim that that is what I would give to the people as a statute governing this matter, but it was a rough sketch of what would be good, and I thought it would offer some suggestions to any Legislative Committee. We intend to use it for that purpose in our State, as a suggestion, not to be final; there may be some points that all would not be satisfied with in either your State or ours. It should be one of the grandest objects of this convention, and we, as a people, ought to feel it to be our main object to have the Legislature as well informed on this subject in all States as it is possible.

This is a modified copy of a law that was sent out. The Bill was sent out by Dr. Phillips, of Washington, D. C., to our Secretary at Topeka, and he sent it to me and wanted to know what my opinion was of it, and I gave him an outline of my opinion of it in a letter; I copied it in part.

It is for you to think about. If you want to keep a copy of it to hand to your Legislative Committee I would be glad to have you copy it, and allow me to have the original, which I brought with me, that I may take it back with me.

President Bowen—I would suggest that this be referred to the Committee on Resolutions, and let them report to us their opinion in regard to the matter and what to do with it.

Pres. Bowen—If there is no objection it will be so ordered.

Mr. Becker—We, as the Illinois State Bee-Keepers' Association, a year ago, and two years ago, got up a bill, didn't we? That has been presented to the Legislature, and was to have been presented again, and the Association, a year ago, appointed a committee of 12 to solicit the bee-keepers' assistance in sending out the petition this year, that it might be presented to the Legislature and ask them to pass this law for us. Now, as I understand it, this is virtually a new Bill.

Pres. Bowen—This goes to the Committee on Resolutions and they can report back. If there is anything in Dr. Bohrer's suggestions it is well enough for the committee to consider it.

Mr. Coppin—In the petition we have gotten up, it does not read just like this one; I think there are some things there that would not suit the bee-keepers of the State of Illinois—not in the one you just read.

Pres. Bowen—What do you think about the one we sent out?

Mr. Coppin—I forget just how that reads.

Mr. York—I believe I signed one of the blanks approving the Bill that was gotten up about a year ago, but I would not care anything about that if we can get anything better; and if this one, or one like it, is better, then I do not care if I signed a petition for some other one; I am for the better Bill, and I don't think any one who signed the petition last year would object if the Legislature would pass a better one. Other States, I believe, are signing the kind of a Bill like Dr. Bohrer's; Indiana and Oklahoma, I think, have passed that Bill, and it is working fine. They are cleaning up foul brood in those States, and what we want is to do that thing. We don't care about any former Bill so long as we can get one that will do the work.

Mr. Stone — With the Inspector, would this Bill be as good as the other?

Mr. York—I don't think the Bill I approved would be as good as Dr. Bohrer's Bill, because, I believe when the inspection of Apiaries is put under the Department of Entomology of each State, they have facilities for taking care of the work that local associations have not got at all. They have help there to take care of the records, and when information is brought in, or

when correspondence is had relative to these matters, they attend to it, and they can appoint a dozen deputy inspectors, if necessary. For instance: The Entomologist of this State need not go out to see a single colony of bees, but could appoint such men as Mr. Coppin, or Mr. Kildow, to do the work, and you would have a central place, it seems to me, where all this work belongs. It comes under the Department of Entomology, where it should be, and where I believe it belongs; bees are insects, and I believe Dr. Bohrer's Bill covers that. I do approve of this kind of a Bill, because I think it is better than the other one. We do not care so long as we get the law in this State that will do the business. What is the best way to clean up foul brood? If this Bill will do what is being done in Indiana and Oklahoma, I think it will do the work better than the one I signed the petition for. I am in favor of the better Bill.

Mr. Diebold—I would suggest that the Secretary read the Bill that was before the Legislature last year, and the year before, and which I understand is the one I circulated around in my county, so that my memory may be refreshed on this subject, and that it may be brought before the mind of each of us.

Dr. Bohrer—Before the Secretary begins to read that Bill, I would simply state that the idea that Mr. Becker has of the Bills would make no difference with the Legislature at all, because I have had some experience in legislative matters; I have been a member of our legislature in Kansas two terms, and some of the pet measures that were introduced were so modified I did not feel that I was the father of the bill after they got through with them. your committee as your Bill—you don't know how it will come out after they get through with it. We are trying to get something that will help you stamp out foul brood. I won't say that this is better than the one you already have, but if it is better, it is the one you want. I read it over hastily. It is a modified copy of the Bill that Dr. Phillips sent to our Secretary, and it will have nothing to do with changing the Bill you have already had before you at all.

Mr. Kluck—Would it not be a good thing for this committee to have the

original Bill that Dr. Phillips has, to compare it with the one Dr. Bohrer has presented here?

Dr. Bohrer—I would like to have you have it if he has one. I would like to read his copy if he has one with him.

Dr. Phillips—There are very few changes in it. I would suggest one thing in regard to the drafting of the Bill. I may say, candidly, I do not approve of the Bill that has been presented to you—the one that you have petitioned for. I think you will be sorry for it if you get it passed.

I think that the method of having the inspection made under the State Entomologist is so vastly superior to the old plan of having the inspection made by an independent officer that you will regret it if you do not adopt the new form of inspection.

In Indiana, in Ohio, in New York, in Connecticut and in Texas the officers who have charge of horticultural inspection are in charge of bee inspection.

Bills of this kind are to be presented to the legislature in Pennsylvania, in New Jersey, and in Maryland, and perhaps in some other States, during the coming winter, and the matter has demonstrated its feasibility so thoroughly that I don't think it is any longer a matter of debate.

The work done in Indiana and in Ohio is excellent. The results are better than from any other inspection in the United States. I can say that with all due respect to the men who have been inspecting. If you put it in the hands of men who can handle it better than any independent officer, it will be easier to get the Bill passed. It will be easier to get the Bill passed if you have this added to an office that already exists, rather than to establish a new office, and it will be easier to get your appropriation provided it is simply an amendment to a Bill that already exists.

If this Association, after duly considering the matter, decides they want to make the State Entomologist a State Inspector of Apiaries, then I would suggest they drop all the Bills they have previously drafted, and that they have modified the Bill which already exists under the office of the State Entomologist; present it as an amendment to the Bill that already exists, and amend the appropriation for his work to include a sum sufficient to

cover the bee work, making it all under an amendment—not make it a new thing at all; have it as an amendment to Bill No. so and so, and it will be more favorably considered.

If you have the amount desired added to his appropriation, it will be easier to get the Legislature to grant this.

The results have been so highly gratifying by this kind of inspection, I think we would be very much better pleased with it than to make the inspector an independent officer, as your Bill does.

And under your petition you limit the amount to a sum that is entirely inadequate for Illinois. The sum, as I remember it, is not to exceed \$600.00. I don't see that an expenditure of \$600 would be of any benefit to the beekeepers of Illinois. You should not ask for less than \$1200.00.

Mr. Kildow—There was some \$1200.00 spent this year.

Dr. Phillips—No, \$700 or \$800. I had a talk yesterday with your State Entomologist, Prof. Forbes, of Urbana, Ill. There is no better Entomologist in any of the States than the one you have in Illinois. The work would be free from political influence, and done under the management of a man competent to do the work—for Mr. Forbes is a man who is wholly competent.

I asked him whether he would consent to have the work put under his Department. He said: "I want you to understand distinctly I am not soliciting the job. I have more work to do than I can do, but if the beekeepers of Illinois, and the State Legislature, feel it belongs here, I will do it."

I feel perfectly free to state that I brought this to the attention of Prof. Forbes because I feel that it is so much better to have the work done in this way. I base my information on results actually accomplished in the other States.

Mr. Diebold—I would like to say that Dr. Phillips' method strikes me very favorably, and we would very likely get legislation along that line, and get an appropriation that would be large enough to accomplish the results we are after.

Mr. Siebold—I am heartily in favor of what Dr. Phillips has said. I think we would get the legislation much quicker, and probably better than we could do it under the plan as hereto-

fore suggested. As it has been already stated, if it is done in connection with another office that is already established, I think the work could be done more cheaply and more effectively. The traveling expenses would be less, and there are other points in its favor.

Dr. Phillips has already suggested the main points of advantage. It impresses me very favorably.

I do not know just what the Bill is, but if it has worked well in New York, in Indiana and in Ohio and other States, I think our legislature would be impressed with these facts, more so than if we put in a new bill from the Illinois Bee-Keepers' Association. Our legislature would be more favorably impressed with a Bill of the kind that has been suggested here this morning, and we would get just as good results. Anything to get good results! To be able to suppress foul brood is what we are after, and I think the way that Dr. Phillips has suggested is the quickest and the best way.

Dr. Bohrer—In the meantime, don't forget that a legislative committee is an important thing to have. Our legislative assemblies are always ready to give anything to an industry they are satisfied the people stand in need of and demand, and you have to put it plainly before them, and if some one goes around to lead them astray, your legislative committee ought to be on hand to head those people off.

Bee-keeping is so extensive an industry throughout Illinois—and I see by the maps presented here by Mr. Kildow that the districts are so infected in this State with foul brood—you have no small question to deal with here. It involves millions of dollars in the State of Illinois alone. I regard legislation in this State as being more important on this subject than almost any other State in the Union.

Just at this time there are many bee-keepers who are selling their farms and moving West, and spreading the infection from State to State. They oftentimes do not know that they are doing this, because they do not know that their bees have foul brood; yet they have it. It came into Kansas in just that way. I was credibly informed that a man who sold bees in Rice county had brought the infection from another State.

It is hazardous for you bee-keepers

here in Illinois to invest extensively in bee-keeping with your present surroundings. It will pay you to put much force and energy into the suppressing of this menace to your bees. No one will throw his hat higher in the air than will I, when you have gotten the Bill through.

I have no bees for sale. I am not in the bee-business to make much money out of it, but for pastime. If my neighbors get into any kind of trouble they are sure to call on me. They don't only ask me one question but they ask me hundreds. I have a lot of work to do for nothing.

Mr. Diebold—That is what the bee does—works for nothing and clothes itself.

Mr. York—I was going to make a motion that we elect a legislative committee of three to take up this matter with Prof. Forbes. It seems to me it would be better to confer with him, and see what is necessary to be done to get through the kind of a Bill we want, or how to amend the Bill we have at present under which his office is working.

If that would be a good thing, I would like to make a motion to select a committee to take this matter up with him; he will know more about it, and tell us what to do in order to get the extra appropriation, or get the right kind of amendment.

If Mr. Forbes always gets what he goes after, he is the man we want to tie up to; and if we can be more successful, working with him, that is the thing to do.

If all right, I move that a committee of three, called a Legislative Committee, be elected to take up this matter with Prof. Forbes and work in connection with him during the coming winter, and put this matter through the legislature.

Motion seconded.

Pres. Bowen—I would like to ask the question, if the Executive Committee is not the legislative committee.

Mr. Stone—The Executive Committee are the Legislative Committee so far as the business of this Association is concerned, and when they are made the Legislative Committee it is by the vote of this meeting.

Pres. Bowen—A motion has been made that a legislative committee of 3 be appointed to confer with Prof. Forbes in regard to this matter of

legislation with reference to the question of foul brood. Are you ready for the question?

Mr. Stone—I don't see why it is that we have not got onto this way of getting a foul brood law before. We have never struck an idea that is equal to that.

When it comes to a man like Prof. Forbes, there is not a better man in the United States, or there is not a man that could be relied on more than he.

I got very well acquainted with Prof. Forbes when my son went to college. My son thought there were no better men anywhere than Prof. Forbes and Dr. Burrell, the latter was president of the University when he went there.

I have learned that when Prof. Forbes is on a Committee that goes before the legislature, they take in every word he says. If we can get his consent and his help I am sure we are to meet with success, and get the kind of a Bill we want.

I would suggest that this Bill be put in the hands of the Legislative Committee along with Dr. Bohrer's, and let our Legislative Committee, that is elected here now, be the Executive Committee or not, just as the Association sees fit to do, and then they will have the handling of the legislative Bill, whatever it is.

If they fail to make an agreement with the University on this line, they will still be at liberty to go ahead on something else, more like what we have signed the petition for. The Legislative Committee might say: there is the bill that all these petitioners have signed, and it is not the Bill you are asking for; perhaps if this Bill you are asking for was placed before these signers, they would not have affixed their signatures to it, and so they would make those signatures out as null and void. Whether they would do that or not is a question. I am in favor of this Legislative Committee.

Mr. Kildow—Dr. Phillips said that Prof. Forbes is a good man, but that he has more than he can do now. If that is the case it seems that is a drawback. Then he has said that four or six students could go out to do the work. I am sure that lots of these students don't know a bee from a house-fly, and I would not want them to come into any apiary of mine in-

fectured with foul brood, fooling around my bees. I would prefer to have some one who has had experience. We don't want to trust too much to him, and I don't think we want to throw too much out of the State Association into the hands of some man employed by the State. I think this Association wants to keep this in its own hands yet awhile.

Mr. Becker—I am in favor of part of that Bill, but I am opposed to that part of the Bill turning the matter over to the State officer.

Now, then, that officer of the State may know all about bees, and may be all right, but he is not going to leave his office and travel over the State of Illinois inspecting foul brood.

He appoints two or three students of the University that do not know the first thing, not the first principle about bees, and don't know foul brood, and we old bee-keepers who have from 75 to 100 colonies—we are to take their judgment and their decision. I am opposed to it. It takes away our power. It takes it altogether from the bee-keepers, for whose benefit this law would be passed, and turns it over to a lot of fellows that don't know anything about it. This is a question we all want to study.

I have been out inspecting. It is the man who has 75 and 80 colonies that takes care of his bees, and if he has diseased bees he knows about it; but it is the man with 15, 20 and 25 colonies who don't look after his bees as he should. He is the one that never makes an effort, nor don't know much about it. He doesn't ask you but one question, but he asks from 50 to 75, all about bee-keeping, and he doesn't seem to know anything about the subject. He wants to get all the information he can from you—I think the Bill that we have got up here, and that we have had before the legislature three or four years, is the one to use.

I think the Inspectors we have had so far have been honorable and straight-forward men, and have done their duty, and I don't believe they over-charge for anything that they have done, and I believe they have done good work.

If these men who have been doing the work have no law to back them, to compel persons to clean up, they have made them to understand that there would be one. I find nine out of ten



are ready to go to work if they have a diseased colony or colonies, and clean them up.

You get one of these young, smart students from college; he goes around between the honey seasons and tells you to clean up your bees, that the bees are diseased, when there is not a particle of honey-flow—what are you going to do? You clean them up and feed them yourself out of your own stuff, or buy something to feed them, or let him destroy them.

Mr. Pyles—I have a mind to get into the band-wagon. In the first place, I am in favor of Dr. Phillips' Bill to quite an extent. If we can get anything that beats what we have I am heartily in favor of it. If it is possible to have the State Entomologist do this work, I would say to get him; if the State is willing to pay him they could simply add something extra to his present salary to enable him to do the work; they have a place to keep the records; they can keep the records of everything that is done. I don't think there is any record whatever to be found of any work that Mr. Smith did. Perhaps a year from now there will be no record of anything that Mr. Kildow and his assistants have done. The record and report that we have here with us today will be shortened down, and no doubt a year from now, only those people that are personally acquainted with the work that has been done will know anything about it.

I feel free to say—and perhaps I am out as much time as any man—I feel free to say that I did very little work for the amount I received; and very little work in the way of benefit to bee-keepers, yet I believe my record will compare favorably with the other men that we had out inspecting this year.

I am in favor of this Bill of Dr. Phillips because I think it is better than what we have got. In the first place, it will be a political appointment, and we have no more guarantee that when the Governor appoints some one he will appoint a bee-keeper than that the Entomologist of the State will appoint a bee-keeper; and as far as the students doing the work is concerned, they will perhaps do the work just as well as the man whom the Governor will appoint. They have the advantage of an education along this particular work and are studying on

this line; they have an education on the subject that it is almost impossible for a majority of bee-keepers to have.

Will the bee-keepers do this work?

The time of the year that you talk about doing the inspecting is not such a time that a good bee-keeper will leave his work and go out at \$4.00 or \$6.00 a day; he is not going to go away from his own place during a good honey-flow.

Pres. Bowen—This discussion is out of order.

Mr. York—The Committee on Resolutions would be glad to hear this discussion.

Dr. Bohrer—The State Entomologist would appoint competent persons to do the work; he would hunt up these bald-headed bee-keepers around here and take lessons. You want to formulate your law right; let the law say that the State Entomologist shall appoint a person who is competent.

Mr. Kildow—Who shall say he is competent? Will it be left to the State Entomologist to say who is competent?

Dr. Bohrer—No doubt he would go to Mr. Kildow among the very first.

Mr. Stone—I want to ask Dr. Phillips if he didn't say it was to be under the charge of the University, and as recommended by the Illinois Bee-Keepers' Association?

Dr. Phillips—I don't know how your laws are here in that regard.

Just a word in regard to Mr. Becker's criticism; it is very distant. And I was going to wait until the State Inspector made his report for an opportunity to say that I highly commend the work that has been done in this State this year.

I have known more about what Mr. Kildow and his assistants have been doing this year than ordinarily. We were working together more or less as I wanted some information they were after, but just the same I know, and you know that there are times during the honey season when it is not worth the bee-keeper's while to leave his own place for less than \$15.00 a day, and those are the days when inspection should be done; and that is the reason why bee-keepers are not as good inspectors as men who are employed all the time. A bee-keeper is at home while he should be inspecting.

This Bill will be drafted for the bee-keepers of Illinois, and not for the Illi-

nois State Bee-Keepers' Association. You have less than one-half of one per cent. of all the bee-keepers in the State. While you have the best bee-keepers in the Association, you have got 99½ per cent. of them outside of your Association.

With all due respect to your Association, which I think is a very excellent one, and I have the kindest of feeling for all your officers, yet your interests and the interest of the 99½ per cent. outside of your Association will be the better taken care of by the State Entomologist.

Mr. York—I understand that Mr. Forbes is not a fool. He is not going to appoint students to do his work who do not know anything about the work. Mr. Forbes would not appoint any man who does not understand inspecting bees. There are plenty of men in this Association whom he could appoint, and whom no doubt he would employ, and not simply some students from the University. It would not be in the University, but in the Department of Entomology of this State.

Dr. Phillips—They will employ men for this work for the whole summer—perhaps for the whole year.

Mr. York—From what I have heard of Prof. Forbes. I am satisfied that he will not appoint any incompetent person. He would want to spend that money in the right way.

I want to see that we get the best work done for all the bee-keepers of this State.

As Dr. Phillips has said, this Association has less than one-half of one percent of all the bee-keepers in the State of Illinois. It seems to me that work of this kind, that covers the whole State, can best be done by a State department; I should think that it could be done better by them than by members of the Illinois Bee-Keepers' Association. There are less than 300 of the 35,000 bee-keepers of this State in this Association.

If this works well in Ohio, in Connecticut, in New York State, why should it not work in Illinois?

This bill that we have approved here, and for which some of us have signed the petition, contemplates spending only \$600.00, and \$600.00 as used now would not clean the disease in six Counties of this State.

As I understand it, half a dozen men could not cover this State; you would

need perhaps 25 men at certain times of the year. If the State has enough money to employ them, they can get them, and clean this disease out.

I have enough confidence in Mr. Forbes, although I have never met him, from what Mr. Stone and others have said of him, to believe that he would do the thing right.

Mr. Diebold—It strikes me, to get the legislature to do what we desire, it would be well to have it come under an office that is already established. It has got to be scientific, and scientific men can prove to members of the legislature that it is necessary to have a law of that kind, and an appropriation large enough to pay for the work to be done.

Mr. Siebold—As has been stated, there is only a short time in the year when this work can be done, and that is, when the bee-keepers are very busy, during the honey-flow; there is no use of undertaking this work in a drouth, or in a season when the bees are vicious, and therefore, I think, as has already been suggested by Dr. Phillips and others, that the University at Urbana will not send out men that do not know anything about this work, but will send the right men, and at the right time of year to do it.

Mr. Moore—There are only four or six men that we can use for this work during the summer season, the only time that this work can be done, and as far as diagnosing cases of foul brood is concerned, it is a very simple proposition; anybody, after he has been shown a case or two, can tell foul brood; however, it takes a more experienced person to know how to handle it. These four to six men would nowhere near cover the State, and if those men in their inspection find a case of foul brood, all they can do is to give notice that it should be cleaned up; then if the law is worked right, and the Chief Inspector, the one in charge, understands it, he can send some other inspectors, who have had experience, there to do the work.

I am heartily in favor of having the legislature appoint the State Entomologist. I think that is the best way to do to get the best and the quickest results.

Pres. Bowen—We have a motion to appoint a Legislative Committee, and this argument has been under that

motion. Are you ready for the question? Motion was put and carried.

Pres. Bowen—I would like a little time on the appointment of that committee. Is there anything further to bring up for the present? If not, I think it would be a good time to hear the report from our State Bee Inspector, Mr. Kildow, if he is ready to give his report.

Mr. Kildow—I will give a condensed outline of what we have done during the summer, and you can ask all the questions you want to.

#### Mr. Kildow's Report.

As your Inspector I submit the following condensed report:

With the aid of my assistants we visited 51 counties having foul brood. With the co-operation of Dr. Phillips, we find that American foul brood exists in 30 counties, and that European foul brood exists in 27 counties.

On this map here (indicating to map hung on wall) you will find where the American foul brood exists; these red spots are the counties in what is called "suspected," that is, Dr. Phillips got reports from some of those counties saying that they have that disease, and some were sent to him that he could not quite make out; so we put those spots in the suspected counties, where we can't quite prove it.

Mr. Moore—In Henderson County, at Gladstone, I found 20 colonies that were badly diseased—no suspicion about it.

Mr. Kildow—We don't put anything in the report unless we are absolutely certain of it—unless we have proof of it.

Any time during the giving of this report if you want to ask questions, stop me and I will try and answer right then.

These (indicating on map) are the suspected ones; these big ones are the counties where we have gotten proof that the disease exists. That is American foul brood on that map (indicating the red marks); this is the European foul brood, and these spots here (indicating the red) are the suspected ones. Twenty-seven counties of European foul brood with seven suspected ones.

Right here, close to me, within 8 miles, I was notified this year of a diseased apiary. A man there with

60 colonies last fall knew he had a little disease; he got a little cranky at his father-in-law and he let his bees stay there and rot down, and this year a bee-keeper a mile and a half from him, with 240 colonies, had 69 of his colonies show disease from the effects of the apiary a short distance away. He cleaned them up, but this fall he showed me a few more.

Right across the Illinois river, just two miles from that apiary, there are two other large apiaries that no doubt next spring will be badly infected.

I wrote to the man who let his bees stay there in that condition, and I went up there and saw his daughter; she said that he was away, but to look at the bees. I did so, and when I returned home I wrote him a letter asking him if he would not bury those bees or destroy them in some way so that he would not affect any more apiaries; a few days afterwards one of my neighbors said that he gave me a cussing for writing the letter.

We want a foul brood law to compel him to clean up his dirty mess.

We visited many apiaries. These apiaries range all the way from 450 colonies to one.

I want to say that down here in Schuyler county, I think, one of my assistants found an apiary of 450 colonies all in box hives, on the Illinois river.

During our trips through these counties where the Association had no members, we tried our best to get the Association represented, and we did get about 5 or 6 new members for the Association, part of these in counties where we did not have any members.

That is the extent of my report. I have cut it down short to give you a little outline of where we have been, and to show you where the disease exists.

Any questions that you want to ask I will try and answer.

A member—Have you any trace of foul brood in Logan county?

Mr. Kildow—In Logan county, American foul brood, no European.

Mr. York—I would like to ask how many assistants you had.

Mr. Kildow—I had 7.

Dr. Phillips—Do you know how many actual days' work it took to cover 51 counties—that is just one-half of the State. There are 102 counties in the



State. Could you tell from your records the actual days' work?

Mr. Pyles—I know I had 37½ days myself.

Mr. Copping—I put in 5.

Mr. Stone—94½ days.

Mr. Pyles—I went to Spring Valley when I first started out. I found one man who had a lot of bees in all kinds of hives. He had a bushel basket of combs that he had outside. I said, "What will you do with these?" He replied, "I will melt them tomorrow."

I was there about a month and a half afterward and that basket was there yet.

There are people who try their very best to get rid of foul brood, and you also run up against a proposition like this. You can't do anything, and when you find a case like this one, don't you realize that you are not doing anything? It looks that way to me.

(Vice Pres. Moore takes the chair.)

Pres. Moore—The inspectors put in 106½ days' inspection at a total cost of \$128.53 in inspecting 51 counties in the State. You can figure what the expense would be to cover the entire State and cover it thoroughly.

Mr. York—I would like to ask whether even one county was covered thoroughly, of these 51?

Mr. Kildow—You have to go at them kind of easy. You can't ask for an appropriation to clean up the whole State at once; they would refuse it pretty quick.

Pres. Moore—If this inspection work is put into the hands of the State Entomologist, and more latitude allowed him for expenses, he would cover the State more thoroughly. We are doing it in a slipshod way. We find the disease and will clean it up; some one else may have it and won't clean it up, and in this way the disease is spreading. An inspector cannot get everywhere. We can't go over the entire county. We may miss a small apiary, containing a few colonies, that have the disease. It would be but a short time until they are all infected.

Mr. York—If this should come under the supervision of the State Entomologist, he would know at all times where the inspectors are. He can telegraph to the nearest inspector, and tell him to go there while he is in that neighborhood.

Mr. York—Mr. Klidow said he went

as far as he could with the money he had.

Mr. Kildow—We are allowed only \$600.00. The committee told me they would back me up in anything I thought best to do. The time of the year was advancing, so that we could only work at a certain time, and we had to be a little easy.

Mr. York—I understand from Mr. Becker's report there is about \$1,000 in the treasury. I should think the Legislature might say, "You don't need any more money if you don't use what you have."

Mr. Kildow—I deputized every man in the State I knew of that was competent to go out. I don't know of another man I felt like sending out.

I talked to Dr. Phillips when I met him in the summer; we talked about plans of work the best we could in a short time; he advised me to follow out the same plan I was considering. We got to work just as soon as we could. I was handicapped in not knowing whom to get. I gave the inspectors—most of them—a number of counties to go into, and told them to go over those counties and look for any diseased apiary.

Pres. Moore—In regard to this balance you speak of, Mr. York, that I think has been carried along for some time. A year ago we had quite a balance.

Mr. Stone—Let me explain; there is the publishing of and getting out of the report of this meeting to go in before the next appropriation.

Pres. Moore—As I understand it, the appropriation is limited to \$600.00 for foul brood inspection.

Mr. York—You can use it for anything you are a mind to; the new bill calls for \$600.00. We have a thousand dollars to spend for anything we want to spend it for.

Mr. Phillips—I would like to say that I have been very much pleased with the work the inspectors have done in this State this year.

The systematic hunting for disease, to find out just what the Association has to do, and what the State has to do to clean up this disease, is a big step in advance.

Heretofore the inspection in this State, and in lots of others, has been a hit and miss proposition. The men would do the work that was imme-

diately before them, with no big broad and definite plan.

This year the plan here has been to find out how serious a situation there is that confronts us, so that the inspectors of the future and the State Association would really understand what is to be done.

These maps show a deplorable condition; they show a deplorable state of affairs in Illinois.

There is no State in the United States that has as many affected colonies as Illinois, as far as our records go, and I think that all these facts will be a great help to the Legislative committee in going before the Legislature.

Another big feature, when Mr. Kildow, next year, starts in, he will know better than he has ever known before where to go, and that emphasizes still more the desirability of keeping an accurate record.

Mr. Kildow—I had nothing to go by last spring, only what I got from Dr. Phillips, and in writing to different parts of the State. I did not go to those places where they said they didn't think there was anything there, because I knew there were many other places to go that did need our attention.

Mr. Becker—I want to show you the difficulty we meet sometimes. Mr. Kildow reported to me that there was foul brood in one county. Now, who are the bee-keepers in Menard county? I found that there was a man that had bees in Petersburg. I got on the train and went to Petersburg. I found a man by the name of Walker who wanted to sell his bees; the city of Petersburg had passed a law that he must keep his bees only 60 feet away from the street. I talked with him and inquired about bee-keepers, and found where I could go. I went to those he told me of, and looked over their bees, but found no foul brood there. Finally I found one man that had some in the country. Well, I would have to hire a horse and buggy to go out there, and hunt them up, to see if there was anything down there—so a Mr. Smedley, a retired farmer, has a runabout, but it was out of repairs, and he says, "If you go back home, when I get my repairs made I will take you over there." At first I could find but one person who had bees,

and finally I got a man to take me out there in an automobile (these men that had the automobile had bees, but there was nothing there, everything was clean). We inspected bees on five different places. Then I went back and found there was nothing there, and then to Petersburg and from Petersburg to Rockford. We found there European foul brood, but not to any great extent.

That is the difficulty you have to encounter; you have to run all over to find out where the bee-keepers are.

(Pres. Bowen in chair.)

Mr. Moore—The report of the foul brood inspector is before the house. I move that the report be accepted. I would like to make a suggestion that we incorporate in that report the number of days' inspection work done, the expense, and a list of the counties in which American foul brood and European foul brood are known to exist.

Mr. Diebold—I second that motion.

Motion put and carried.

Mr. York—Mr. Becker said he went around looking for foul brood. As I understand it, the inspectors are to go out when the disease is reported to them—is that the idea?

Dr. Phillips—Not under the present law.

Mr. York—If we got the new law, the central authority would be reported to, and he would send the inspectors out—is that the idea?

Mr. Kildow—If I had waited last summer for reports to come to me, you would not have had anything done. I got four requests last summer for me to go and see their bees. If I had just gone to those four places, you would not have had much inspection done, and you would not have known where this disease was, because they did not send to Dr. Phillips as he asked them to do.

I got four requests. You have to go out and hunt it up. The bee-keepers don't want you to know they have got it.

Mr. Becker—I think there ought to be one rule, and I understand it is the rule of the Department in Washington to inform our inspector of foul brood in certain counties. If it would be reported at the postoffice, we could go to the postoffice, and if the postmaster did not want to give the names, all right, we could find out. A man in

Mason county reported to me that all his bees were dead but about 30 colonies, and he wanted to know the trouble—what was the matter with them. I says, "I don't know; I will come tomorrow." The next morning I went over into Mason county and met the man who owns the bees, and went out to his house and found that his bees were actually starving to death; you could see there was no disease there.

Mr. Coppin—I happened to be talking to a lady bee-keeper in the same country our inspector lives in, this summer. She stated there was something wrong with her bees, and that she had sent to Wisconsin. I said to her, "Don't you know that we have a bee inspector here in the same county?" and she said that she did not know this. I said, "We have." She said, "I guess I don't need it; I have been told that the trouble was that my bees had foul brood, and I have treated it and have got rid of it." But each time when I have been out there I have found no trouble to find plenty of it. I was out inspecting only 5 days.

Mr. Kildow—She has plenty of it yet.

Mr. Coppin—I notified our inspector about it and he has gone there since.

Mr. Becker—As I stated before, if we were given the towns where the foul brood was, the inspector could go there and locate it.

Mr. Pyles—There is one thing else that I think has not been covered, and that is the work as it has been done heretofore in the State. Last year Mr. Kildow sent me to different places. He had no record whatever of the work that had been done before. When I got there they told me that Mr. Smith was there last year, and the year before, and the year before. What benefit was that to the people of the State of Illinois, to go just as an inspector and find foul brood in their yard year after year? It does no good to inspect them time and time again.

The men that need inspection are those men who do not know that they have the disease, and if you are going there for treatment, then go where you know the disease is. If you are going out for inspection, inspect where you don't know that the disease exists. It is not necessary to inspect year after year where you have previously been. That is the way the work has been done in the past.

I was out, under Mr. Kildow's direction, 37½ days, and inspected over 3,100 colonies, and found 28 diseased apiaries.

I was around usually where nobody had ever been inspecting. Mr. Smith had always waited until he got a call. He would go to Cook county and inspect an apiary, and then go home. And then go to the south part of the State, and go home; not saying anything against Mr. Smith, he did it perhaps as he thought best.

I think where we need inspection is where we do not know the disease exists.

Mr. York—It seems to me very strange that an inspector should go year after year and find the disease. I thought that the object was to get the disease cleaned up.

Mr. Pyles—We have had no orders to treat the disease, but I think that is one thing that we do want to accomplish. I believe if we could work with the government, through Dr. Phillips, we could work better. I think this is the first year the State and the government have gotten together.

Mr. York—I understand the government has a list of about 5,000 bee-keepers in Illinois. This Association has only about 300 members out of that whole list, and only 62 counties out of 102 counties. According to that there must be in the State from 10,000 to 12,000 bee-keepers.

When we were at Michigan last week, Dr. Phillips and I, they inaugurated a plan by which they are going to use the names of bee-keepers the government has. That is something that I believe is a good thing to bring up at this point in this Association. I believe it will help to build up the State Association to co-operate with the government.

They started a plan at Grand Rapids last week by which they are going to use 4,000 names of bee-keepers that the government has in Michigan. They are to get out a circular on bee-diseases, and also will invite the bee-keepers to become members of the Bee-keepers' Association, and get in correspondence with these bee-keepers, whose names the government will supply.

I would like to see something like this started in Illinois.

If Dr. Phillips will tell us about the same thing here, suggesting as to how

we could use those names, I think it would be to our great advantage.

Mr. Kildow—I would like to say one thing: We carry our paraphernalia with us, and whenever a man wanted us to we helped him clean up his diseased bees.

Pres. Bowen—Before we hear from Dr. Phillips, I would like to name the committee on legislation: C. P. Dant, Jas. A. Stone and J. E. Pyles.

Dr. Phillips—I have been thinking for some time of trying to find some way in which the material that we collect can be made a little bit more valuable to the bee-keepers of the country. I am as anxious to find some way by which the State Association can get a lot of work to do, because the harder a man works the greater his interest will be. The harder an association works the greater will be their interest, and this applies to the individual—the greater interest will he take in the Association if he works for the good of the bee-keepers.

Since the situation as to disease is so urgent, there is enough work for every man with a knowledge enough about the disease to work intelligently, and it cannot be done by only a few.

It would be the height of folly to expect the inspectors of this State to do all that is to be done among the diseased colonies.

If you had 50 men traveling over the State, they could not cover the ground and reach everybody. And you cannot get 50 men, so that some other way must be devised by which the people who have these diseases among their bees can be informed concerning the nature of the disease and concerning their treatment.

With that thought in mind I have been trying to see what other methods can be devised in addition to the inspection, so that some of these things that we so much need can be accomplished.

The Bureau of Entomology for some time past has been keeping a record of all locations in which the disease is found, based on examination of actual samples. We don't take anybody's word for it. Mr. Moore said he found in Henderson county a bad case of the disease. Henderson county seems to be outlined on our map, but we can't make it solid red on his say so; we have to say in our records that it has been obtained from actual samples re-

ceived and examined. When it is from an actual sample, there can be no question about it.

In order to reach the people that have the disease in their colonies we have been making an effort to get the names of bee-keepers in the counties from which the disease is reported.

The situation in Illinois is something like this: According to the last census there were almost 35,000 bee-keepers, which produce about 3,000,000 pounds of honey per year. You have about one-half of one per cent of the bee-keepers in your Association.

Mr. Moore—In 1910?

Dr. Phillips—The census previous. That census includes bees on farms only; not in towns and cities; it is supposed to be enumerated this time.

The method in which we have been getting the names of the bee-keepers has been to write to the postmasters and ask them to give us this information.

In Illinois we have sent to 1,335 postmasters, and have received lists of bee-keepers from 1,073 of those postmasters. We have received replies from 80 per cent of the postmasters to whom we have made this request, and have made an increase in our mailing list in these counties of 590 per cent, in the 62 counties. We have done this in 62 counties out of 102.

In the 62 counties we had previously 734 names of bee-keepers; in that same territory we now have 5,048, an increase of 4,314.

For the entire State, that is, all the counties including 40 to which we have not sent requests for names to the postmasters, we have 5,177 names.

We have here a list of the counties, giving a number of postoffices, the number that replied; the number of bee-keepers' names previous to the inquiry, and the number afterward. That is merely a matter for office record.

It has occurred to me that possibly there is some way these names can be used. We got these names for the purpose of sending to bee-keepers in the counties where we know the disease exists at least one publication dealing with this subject.

I realize that when a government publication comes through the mail, that in nine times out of ten it is thrown in the waste basket. I know if we send a circular to the 5,100 names on our list a great many will not be

read, but we can accomplish a little something from the method used by advertisers of a mail-order house.

If you get in the mail something of a similar nature—practically a repetition of the same thing, or on the same subject, four or five times—something on the same subject time after time, after a while you will read it. You may not read it the first time, but you will read it before you get through.

The scheme I proposed in Michigan was for the State Association and our bureau, and perhaps some other office, to co-operate on this thing and use this list of names. Suppose your State Association were to send something to all of these 5,100 names on the subject of disease, and suppose all but 500 threw it away; you would do a good deal of good through the 500 you reached. Suppose in a week or ten days all these men got something else on the same subject—probably 1,000 would read the second. Then in a week or ten days, send out another letter on the same subject—and before very long you would reach a large number of people that you had on your list. They would read what you had to say in some form or other.

Now I realize that we do not have on our list more than 25 per cent of the bee-keepers in any one county, but I realize on the other hand that if we get something in the way of literature into the hands of the 25 per cent of the bee-keepers, it will do good work, because they will spread it, and their neighbors will get a knowledge of it in this way.

If there comes a bombardment of literature on a certain subject into a county, it is going to get about—it is going to be talked about, and there is going to be a certain amount of interest concerning it.

We have done already a good deal of work in sending out publications in that way, and we immediately get a lot of requests from these counties, asking: "Please send me your Bulletin," or "Please send me your circular," and ultimately I imagine we would get in touch with about 75 per cent of the bee-keepers. I do not know any way to reach 100 per cent—some way in which we could reach every bee-keeper.

Mr. Diebold—Send a premium.

Dr. Phillips—That might be better.

Dr. Bohrer—Do it through the Statistical Bureau of your State.

Dr. Phillips—We don't reach all; besides that, you don't get their ears; they don't listen to everything you say.

When we realize that in regions like Illinois, where the disease is prevalent, the bee-keeping of the future is going to be in the hands of the specialist, and you are going to reach the few specialists in this 25 per cent of the men who are interested, in this manner, we are sure of accomplishing results by sending out this literature in the manner that has been suggested.

If there is going to be a way by which your Association can co-operate with us, I would be glad to take that up with you, and see if we cannot do something that will accomplish good for the bee-keepers of this State.

You have some money from the State which is given to you for the promotion of bee-keeping, and I don't see how it would promote it more than in spending the money in endeavoring to get these people educated on the subject of bees and bee-diseases, so that they will know how to handle the situation when necessary.

Through your blank that you send out you will say, "We have a State Inspector, and his name is A. L. Kildow, of Putnam, Ill.," and this will be a new piece of news to them; and then he may get more than four requests a year. They will hunt that man up and write to him, and be more interested, and if the thing is worked properly I think it would do a great deal of good.

Another thing I think your State Association is in a very good position to do, and that is to go to your Experimental Station and say, "We would like to have some publications on this subject issued and distributed by the thousand in the State." If you will furnish help to the men who write the bulletin, and can furnish a large list of names, I am sure, though I have not said anything to these men about it, that they would be very glad to help you in that work, and without any expense to you, and you would find that that would be an additional benefit.

I would like to hear suggestions from you as to anything that you may think of that would be more effective in getting before the people the information they ought to have. I would be very glad to have these things brought out.



Dr. Bohrer—I am certainly pleased to hear these suggestions from Dr. Phillips, and I think it would be an excellent thing to inaugurate a system such as he has suggested, but it is no easy task. We have been to work at that for more than 35 years in Kansas.

This talk of Dr. Phillips to us is along a line that we have thought, and an action that we have got to adopt as bee-keepers.

We want the educational institutions of the State, and of all the States—the Agricultural Colleges in particular—to teach the habits of the bee and its management. The students, in turn, as they leave the institutions and go out in the world, even though they may never be practical bee-keepers, they carry with them a fund of knowledge that they will disseminate readily to persons who want information concerning the habits and management of the honey-bee.

In the winter of 1877, Prof. John Anderson invited me to deliver a lecture before the students of the Agricultural College at Manhattan, on the subject of bee-keeping, and there were 200 students in the hall, and a more attentive audience I never addressed. He stated to me that it was the intention to take up bee-keeping there, but he said, "None of us know anything about it whatever, and we want you to cite us to authorities and give us an outline talk of the habits of the insect, and it will be a starting point for us."

I delivered the lecture, and I want to say that a more interested audience I never addressed in the hundreds of lectures I have given; the attention was so great that you could have heard a pin drop at any time during the lecture.

After that there were some bees purchased and placed on the farm, but no instructions have been given those students there whatever.

Prof. Anderson got a political bee in his head. He was made a candidate for Congress and was elected, and he never came back in charges of the school any more, and the industry has been languishing, for the reason that the regents of the college know nothing about bee-keeping; they don't know that it is worth anything, and scarcely will they believe us when we tell them the truth about it. They are appointed

by politicians—appointed by the Governor, who is simply a politician, and when we write them up through the papers they won't publish it, they take it as an insult to the college and a public official.

The teachers of the colleges know nothing about bee-keeping, and these officials not urging the colleges to teach it, it remains untaught and is neglected. And the result is, whenever we ask for legislation, because the members of the Legislature know nothing about the science of bee-keeping, they do not give us what we stand in need of.

Millions of pounds of honey, as a result of this lack of education, are annually going to waste in many and most of our States, that might be saved if people would become interested in the care of bees.

As I have before stated, the reason we do not get such legislation as we stand in need of at the present day is because the members of our legislative assemblies know comparatively nothing of the management and habits of the honey-bee. But after it is taught for a series of years in our colleges, in our industrial schools, that state of affairs will cease to exist, because the young men and women who are attending these schools, and being educated in this direction, will become the mothers and fathers of the young men who are to be our successors in the legislative assemblies of the State, and any industry requiring their aid, and an appropriation needed from the State, can be had when their wants are put before them in an intelligent form.

In our industrial schools the young men and women acquire the most practical education that is obtainable, and it fits them for usefulness in life in any and all departments. We have less young men leaving our industrial schools who part their hair in the middle, and less young men and women who do not know which end of a cow to go to for her milk, than from any other source and when once the people get to understand the mysteries of bee-keeping and the sources of income, and the benefit that that insect is to the horticulturalist, as well as its value for table use, it being the most wholesome sweet in the world—everybody will be ready to endorse the in-

dustry of bee-keeping and give it a little support.

Mr. York—We are getting away from our subject. We don't want to get away from what Dr. Phillips has said about using those 5,000 names. They expect to get out a four-page circular double letter size, in Michigan, and use the 3d and 4th pages for advertisers, offering the bee-supply dealers and queen-breeders a chance to pay for this circular, so that there will be no expense to the Michigan Association.

The Illinois Association can do the same thing, and get out a similar circular to send to these 5,000 names, and in that letter give them some instructions as to foul brood and other bee-diseases, invite them to join your State Association, and give them any other information you wish that is helpful to bee-keepers in this State; and at the end of the circular, put the advertising, which will cover all the expense.

I think it would be a great help to this Association to use those names. I am sure the bee-supply dealers and others will be able to help pay for it. The advertisements I believe will cover all the expense, and in that way you can co-operate with the Government. What they are trying to do is to get foul brood cleaned up in this State.

I would like to see this Association follow the same lines as the Michigan Association are going to follow. They will soon be ready with their circular. Our Secretary might get up a similar one.

If this Association would send out something in the way of a circular to these names furnished by the Government, and the State Entomologist is authorized to take charge of the inspection work, the people will soon "sit up and take notice."

Mr. Diebold—From what Mr. York and Dr. Phillips have said, about getting this information before the people of the State of Illinois with the least expenditure of money, I understand that we have a little money here at our disposal as an Association, and I would suggest that the committee on printing, who have these matters in charge, be allowed to use some of this money for the purposes suggest-

ed, and that the matter be turned over to our Secretary.

Mr. York—You mean be referred to our Executive Committee?

Mr. Diebold—Yes.

Mr. Pyles—I move that you put this matter before a committee and have it passed upon in some form.

Pres. Bowen—I think the Committee on Resolutions should take this into consideration, without any referring being necessary; however, it might be well to refer it to them.

I would like to express myself. I don't think we ever had any one at our Convention here who has really put us in line of doing the work as it should be done, as Dr. Phillips has. He has outlined this work in a better way than I have known any one doing heretofore, and I feel like complimenting him. I think Dr. Phillips has put us on the right road to get the business done, and to get matters before the bee-keepers of the State in a better way than anything that has ever been suggested.

I hope the Committee on Resolutions will put it in such a way that we can come before the legislature and have them adopt the measures we need, and have been trying to get for so long a time.

Pres. Bowen—Is there anything further? If not we will now ask Dr. Bohrer for his paper.

Dr. Bohrer—My paper is in the hands of Mr. York, and I will ask him to read it, and if there is anything in the different methods of treatment—when the paper is read—that you would like to ask about, I should be pleased to have you do so.

Pres. Bowen—Mr. York will read Dr. Bohrer's paper.

#### European Foul Brood.

All who have had experience with European foul brood seem to agree that the Alexander method of treatment is a success, provided the directions or course of treatment marked out by Mr. Alexander be rigidly adhered to.

The prominent feature is to keep the infected colony queenless for 21 days, and then to provide them with a virgin queen or a queen-cell, which will keep the colony without a laying queen for 30 days at least.

In the meantime, the queen heading the colony when treatment is to be begun is to be destroyed. In fact, to kill the queen is the first step to be taken. But the reason for destroying the queen has not, to my knowledge, been given by any one.

And to me it is something of a mystery why simply caging the queen for 30 days would not fill the bill, and especially so in case the queen be a good one at the time she is taken from the infected colony, and to my mind there has not been a good and sufficient reason given as to why she should be destroyed.

In case this matter has not been fully tested I would suggest that some one take the queen from a colony infected with European foul brood, and put her at the head of a colony on comb foundation, and if the ailment is at all traceable to the queen or her eggs, the disease will quickly show up.

I have called attention to this matter for the reason that it seems to me that a good queen is worth saving in case the infection is not traceable to her or her eggs. I would test the matter for myself, but have no European foul brood in my apiary.

But there is another important item that must not be omitted: In treating European foul brood, when the Alexander method is adopted, namely: keeping up the strength of the colony in numbers—as the matter of brood-rearing is suspended for 30 days and must cause great depletion in numbers, and must be kept up at the expense of other colonies that cannot possibly well afford to be thus taxed—this brings us to the point where it is but a matter of business to inquire whether or not the Alexander method of treating European foul brood has any advantage over the McEvoy method of treating European foul brood, the McEvoy plan being to put the colony on comb foundation, which does not stop the laying of eggs but from one to three days, so that at the end of 28 days young bees will begin to emerge.

Moreover, ready-constructed combs, if at hand, may be given them in a very few days after they have been transferred to new quarters, and the process of brood-rearing can go on with but little interruption. But whether there be comb at hand to sup-

ply the colony with or not, the queen will be saved under the McEvoy method of treatment, so that in case the colony at the time of treatment be reasonably populous there will be no serious delay in the matter of brood-rearing. At any rate no more than occurs in treating bees for foul brood of the American type under this method. But as to whether or not the destruction of combs which the McEvoy system requires will cause more loss in brood-rearing as regards time than 30 days loss in egg-laying and in development of brood under the Alexander method, is a question that I am not fully prepared to answer at present, and will suggest that bee-keepers test the matter, as I think it worth looking after.

G. BOHRER.

Lyons, Kans.

Pres. Bowen—You have heard the paper by Dr. Bohrer, is there any discussion?

Dr. Bohrer—I would like to hear from Dr. Phillips as to whether the disease is traceable from the eggs.

Dr. Phillips—We find a number of organisms present in European foul brood, the same as in American foul brood, and have good reason to think that one of them is the cause of it, but we do not know which one. Dr. Bohrer brought up the question of the treatment of European foul brood as to whether it is cheaper to use the Alexander treatment for foul brood or the McEvoy treatment, or whether it is not really better in every way to stick to the old stand-by, the shaking treatment, and compel the bees to build a new comb. My personal opinion is that it is rather unwise to use the Alexander treatment, as it is sometimes called, because so many people are getting bad results. In the hands of a good bee-keeper, who is careful, undoubtedly the Alexander method is very often successful, but since so many people are unable to get satisfactory results with it, and since we do not know why it works sometimes and not others, I would prefer to recommend the shaking treatment. The shaking treatment has been in use for 150 years.

Dr. Bohrer—That is, take away the comb and melt it up into wax? My experience has been that boiling any-



thing short of 30 to 35 minutes is not safe.

Dr. Phillips—I don't think it is necessary to keep the wax hot that long. As to the matter of boiling, you don't know the time that is necessary. The length of time necessary to kill the germs in European foul brood has never been determined, and we cannot determine it until we find out what the organism is.

Mr. Pyles—Is the European disease transmitted?

Dr. Phillips—Just the same as American; undoubtedly through honey-robbing, the same as the American foul brood.

Mr. Seibold—I had foul brood in my apiary, and at different times have experimented in boiling the frames and using them again; in boiling the frames there is always more or less wax accumulates, and a little honey sticks to it; in using those frames again in most cases the disease re-appeared, and I believe it is in the honey; I can't help but think, if there is a particle of honey left it is in the honey; I am satisfied it is in the honey, but I think the frames and hive can be used by using a gasoline torch, or burning it with coaloil and brushing with a stiff brush; I think it is in the honey.

A member—You think it is not safe to use them even if they are boiled for 30 minutes?

Mr. Seibold—Not unless you get all the wax out by scratching them to get it out; I think it is in the honey.

Dr. Phillips—There is one factor in the discussion of European foul brood that is almost always left out of consideration. If the disease is very bad in the colony it will remain in the colony all during the year; but when different men talk about the treatment with which they have been successful, they forget that the probabilities are that if that colony had been given any kind of a show it would clean itself up. I know men who think it is not necessary to treat; some men do just enough to give the colony a good start towards its own recovery, and then they attribute it to a certain treatment.

A great many colonies clean up the disease themselves, provided they don't get too far along. If a colony is not badly affected it will oftentimes

clean itself up, and if you boost a colony and give them a chance to clean up without doing any one of the hundred different things that have been given as treatments, which are simply stimulants, they will clean themselves up.

Mr. Diebold—If we give them a good honey-flow, would that help?

Dr. Phillips—The only time to inspect European foul brood is when there is a honey-flow. In Indiana, as soon as the honey-flow starts, men leave the European foul brood districts and go to American foul brood.

All these things that have been suggested as treatments and advocated as cures, or most of them, act as stimulants. They help the colony over bad places and then the colony cures itself; but the colony that cures itself gets the disease next year!

Mr. Moore—If the bacillus is in the larvae and the bees carry that outside in the cleaning process, is there any danger of it spreading?

Dr. Phillips—I have no doubt of it; no doubt it is spread by that means.

Mr. Moore—I should think it would spread worse than we have any records of. I should think that dry larvae would blow around, and would cause the disease to spread more than we have any knowledge of.

Dr. Phillips—It would have to get with other larvae before it would produce disease. In Indiana, last year (in 1909) the inspector kept a careful account of the apiaries inspected, and the number of diseased apiaries he found, and he found that where the American foul brood existed, about one colony in ten was infected in that region; and where European foul brood existed, it was very much higher. In regions where American foul brood was found it was rare not to find often 25 per cent infected.

I never heard of any European foul brood in California, but the American foul brood is much more virulent there than in the East or North. The European foul brood is spread much more rapidly than the American, but on the other hand it sometimes disappears of its own accord.

A member—How is it possible to disappear of its own accord?

Dr. Phillips—The disease, for some reason which we do not understand, increases in the spring and decreases

in the fall; why that is we do not know. Often when a district is infected, when there is plenty of it there, it decreases in the fall; oftentimes if we just start a colony on the road to recovery it will finish the job.

Dr. Bohrer—Has not the discovery been made that sometimes a scale is left in the bottom of the cell and filled with honey—that may be a cause for it in the summer?

Dr. Phillips—It might be.

Mr. Moore—There is one point that Henry Stewart brought out in regard to his treatment for American foul brood. He said he never saw a cell filled with honey or partially filled with honey, or had any honey in, in which there was a scale of foul brood; he said he never had found it, and never knew of it being that way. He said the bees always clean it out before they put the honey in that cell. I don't see how they could.

Dr. Phillips—I have seen bees tear down foul-broody combs to winter in, in an effort to clean it out, but never saw them successful.

Dr. Bohrer—In any of your experiments has there ever been an egg found laid in one of those cells, that has scale in the bottom of it?

Dr. Phillips—I have seen that.

Dr. Bohrer—Might that not be one of the very causes of starting it?

Dr. Phillips—It might be.

Dr. Bohrer—I would be afraid of it any way.

Pres. Bowen—What other questions do we want to consider this afternoon?

Mr. Moore—A pretty important part of our meeting has always been the question box. I would suggest we have the question box passed now; if there is anything we wish asked, have it put in writing and put in the question box.

Pres. Bowen—If any one has any questions to ask, put them on paper; we will pass the hat around, have some one read the questions, and hear the answers.

A member—I think it is time for the election of officers.

It was moved and seconded that the election of officers be had tomorrow (Friday morning) at 10 o'clock, and motion to that effect carried.

## Membership of Affiliating Organizations

Mr. Stone—In the matter that I mentioned in the Secretary's report as to the cost of membership of the affiliating societies—25 cents—which has made so much trouble, and is a just cause for a discrimination between the affiliating members and those coming into the Association who pay 50 cents—one paying 25 cents and getting membership in three associations, the one paying 50 cents only getting two; each getting a cloth-bound copy of the reports.

I stated in my report that our last report cost us \$1.01 per copy; that was the exact cost of it. These members getting it for 25 cents think it does not cut any figure, that the State pays for it—but why charge them only 25 cents when members that come in directly to the Association are charged 50 cents?

I wish to make a motion that Article 3, Section 1, of our Constitution, which reads this way:

### ARTICLE III. Membership.

Section 1. Any person interested in Apiculture may become a member upon the payment to the Secretary of an annual fee of one dollar (\$1.00).

(Amendment adopted at annual meeting, November, 1905): And any affiliating association as a body may become members on the payment of an aggregate fee of twenty-five cents (25c) per member.

Mr. Stone—I want to make a motion to change that to 50 cents per member.

Mr. Kildow—I second that motion.

Pres. Bowen—You have heard the motion to amend the Constitution, Article 3, Section 1, in accordance with the motion made here, making it read, instead of "aggregate fee of 25 cents per member," "aggregate fee of 50 cents per member."

Then their fee is just the same as we pay in coming into the State Association; then if they want to go into the three Associations, that is between them and the other Associations. The motion is to strike out "25 cents" and insert "50 cents."

Mr. York—Referring to this motion, I would like to ask for information: You know the Chicago-Northwestern is the largest Association that affiliates with this Association. I think

there were 86 members last year. Now a number of the Chicago-Northwestern members are bee-keepers in other States and many of them say that they do not care anything about joining the Illinois State Association, and ask why they should pay 25 cents; according to the Constitution we have to come in as a body.

Mr. Stone—That does not mean, Mr. York, members outside the State; that means members in the State. There was a resolution passed, and it went into our minutes to that effect—members in the State.

Mr. York—If we are going to join in a body, that means everybody. The Chicago-Northwestern is held in Illinois, but its members do not all live in Illinois.

What I was getting at is this: If they should vote not to join at all under this amendment, you would be out nearly \$30.

Mr. Stone—In that case this Association would say, "We can't pay for your report; we can't pay for the report if you don't join our Association." They will get value received by getting the report of their association. They also get ours, and they get the National.

Mr. York—As President of the Chicago-Northwestern, I want to understand it thoroughly so that when I get up before that Association I will be able to talk intelligently, and urge them to continue their membership here, because the report you send out to them is worth a couple of dollars—your own report, the Chicago-Northwestern report and the National report, three reports in one book—50 cents would be very cheap for that.

I want simply to know your reasons for desiring to raise the dues. I am very anxious that the Chicago-Northwestern members shall all become members of the Illinois State Association.

Some one has suggested, "Why doesn't the Chicago-Northwestern join with the State and give up their Association?" We don't want to do that; I think we ought to keep up our Association. There are a great many bee-keepers in the Chicago-Northwestern Association, and it helps the Illinois State to have them become members, because it increases your membership here, and when you go

before the Legislature you have a larger list of bee-keepers to present. We are going to raise our dues, I think, in the Chicago-Northwestern Association, to \$1.50, so that we can pay you 50 cents, the National 50 cents, and then have for our own use 50 cents per member, because we cannot run our Association for less than 50 cents each.

Mr. Moore—In case of affiliating associations becoming members at 25 cents, does not that include membership in the National?

Mr. Stone—No. I want to say one thing in regard to what Mr. York has said: The Chicago-Northwestern, when it was under another name, affiliated with the Illinois State, and one meeting was held in 1892 in Chicago in addition to the one here at Springfield, and that meant two meetings in one year for the State Association. In 1893 the National met during the World's Fair year at Chicago, in the neighborhood of the World's Fair, and being Secretary of both of them, I conferred with some of the members of the executive committee in the National Ass'n, and we decided that we would not have any convention in Chicago that fall because the National had been there. Mr. Hutchinson was Secretary, and he made a strenuous kick in some of the bee-papers, and said it was on account of the Secretary of Illinois State Bee-Keepers' Association that a meeting was not held in Chicago that fall. We intended to hold another one the next year, and they didn't give us a chance. That was all there was to it.

Mr. York—The Chicago-Northwestern Association, as we call it now, was not started until 1898.

Mr. Stone—The last meeting that the State Association had in connection with the old Northwestern Bee-Keepers' Society was the year before the World's Fair.

Mr. Kluck—As President of the Northern Illinois Bee-Keepers' Association, I would state that Association has simply paid their quarter per member to the State because they thought they recognized in the State the only official way of getting a foul-brood law established. They thought the State representatives would not recognize Northern Illinois. That is

the only reason they paid their dues—because they thought the State Association would be able to get a foul-brood law passed. Now, then, if Prof. Forbes gets the appointment, I don't believe our Association will pay their dues outside of our home and the National dues. They would feel as though they were taxed a little bit too high if they had to pay \$1.00 to the National and 50 cents here.

Mr. Stone—It will be only 50 cents this year to the National.

Mr. Kluck—As I understand it, the National has grown three times as strong as it was, just through the affiliation of these other societies. Our society thinks that with their home society and with the National, they have enough.

Mr. Stone—Mr. Kluck acknowledges that they are dead bee-keepers, if men do not think enough about the report that the Association gets out to pay 25 cents for it, and will refuse to come into the Association because it costs 25 cents more; besides receiving the report they can come down here if they want to and enjoy all the privileges and get all the benefits of this convention.

Our members say we are paying 50 cents, and the first thing when an advertisement came out for members who might join the Chicago-Northwestern, it stated they would get the benefit of the three Associations for \$1.00—get the report of the Illinois State Bee-Keepers' Association, the Northwestern and the National, all three for \$1.00. The first letter that came to me after that notice appeared in the American Bee Journal, was from a man at Virden who had been a member of the State Association, and we got 25 cents out of him because nothing was said about the Illinois State, only that he would get the Illinois State Bee-Keepers' Report embodying the National and the Chicago-Northwestern; we got 25 cents instead of 50 cents. Supposing they would all do that, what would become of the Illinois State Association after about a year or two? Only give its members time to find out there were three associations they could join and get the same benefit, and we would not get any members. I think this Association has to change that clause or it will be swallowed up, and there will be nothing

left of the Illinois State Association.

Mr. Kluck—It costs a member to come down here from \$14.00 to \$15.00; it costs about half of that to go to Chicago—from \$6.00 to \$10.00; some of them think they would rather go to Chicago than come here. It takes us a long while to get down here. If I start home tomorrow at 11:35 a. m. I get home at 10 p. m. When I come here I start at 8:30 in the morning and get here at 6:30 p. m. To Chicago we have faster trains, and only a few hours on the road; we can go and come the same day. They seem to prefer to go to Chicago to the Chicago-Northwestern on this account; to pay in three or four associations—they don't like to do it; and if the fee is increased I know they will simply vote against it as an organization.

Mr. Seibold—I don't see that that has anything to do with the justice of the matter of which our Secretary has been talking. He is talking about the injustice of our paying 50 cents and other societies paying 25 cents.

Mr. Diebold—It looks to me that there are not many members of the Northern Illinois Bee-Keepers Association. We would like to have them remain with us, but if they should not—I would like to ask Mr. Kluck this question: Would it pay you to publish and print the report of your Association?

Mr. Kluck—Ours is never published.

Mr. Diebold—It would not pay you as an Association not to have the report of the Illinois State Convention by withholding the 25 cents. I think by paying the 50 cents you would get more than your money's worth.

Mr. Kluck—I am satisfied they would get their money's worth, all right; they simply would not come into the Association.

Mr. York—I don't believe that the Northern Illinois Bee-Keepers' Association will stay out on account of 25 cents a member; I believe the President would pay that difference himself, for the whole Association, rather than have them out. I think when it is explained to them they will be perfectly willing to come in. We will raise our dues, I think, in the Chicago-Northwestern, to \$1.50; if we do, we will have 50 cents for this Association, 50 cents for the National, and 50 cents

for our own Association. I think we can run it on that.

Mr. Stone—At the National Bee-Keepers' Association at Albany, N. Y., last week a committee was appointed to formulate a change in membership fee, and we incorporated the following in our notice sent October 18, this year:

"At the National Bee-Keepers' Convention at Albany, N. Y., last week, a committee was appointed to formulate a change in the membership fees, on account of which notice is hereby given that at the coming meeting a change in our Constitution will be proposed as to fees of affiliating societies."

Pres. Bowen—Those in favor of the amendment as read, make it known by saying aye; contrary, no. The amendment is carried.

Pres. Bowen—We have a number of questions; I will ask Mr. Moore to read them.

#### **Best Bottom-Board, Cover and Hive.**

"What is the best bottom-board and cover, and what is the best hive?"

Mr. Pyles—There are so many different opinions about that it is rather hard to answer.

Mr. Moore—As far as the hive is concerned, I think the best hive for the ordinary bee-keeper is the regular 10-frame Langstroth. I think the majority of bee-keepers would get better results from this than from anything else.

As far as my experience goes, I like the metal-cover cap. I use it almost entirely. I use a thin board super-cover, and then a shallow telescope cap adjusted probably 3 or 3½ inches, covered with galvanized iron.

Dr. Bohrer—Use an inner cover?

Mr. Moore—Yes, sir, and a metal cover on top.

Mr. Diebold—Would not that make the bees too hot, and increase swarming on a hot day?

Mr. Moore—No, not necessarily. It fits loosely. There is a constant current of air; you have two thicknesses of wood and an air space between the metal and the hive, so it gives plenty of circulation of air.

Mr. Diebold—I am using ten of them, and Inspector Kildow came to my yard last June; it was very hot weather; and he found it was very hot when he put his hand on it. He thought

it would increase swarming and suggested that I cut some grass and put on it, and I did.

Mr. Moore—Did you lift one of those up and feel the super-cover under it?

Mr. Diebold—I don't believe I did at that time; I did at another time. Those with the metal cover on the super-covers were quite a little warmer than those I put paper covers on, so I found that Mr. Kildow's suggestion to me to cut grass and throw on when he had a real hot day was a good one.

Mr. Moore—I find it a good idea in hot weather to use shade-boards. I like them; I want to have the bees out in the full sunshine, but use shade-boards and find this works very well, and the heat will not be too great.

Dr. Bohrer—What you call the Danzenbaker cover is what is practically an Acme cover, is it not?

Mr. Diebold—The Acme cover I never had. I have had Root's cover, and some covers I bought in Michigan that were made on the same principle as the Danzenbaker cover.

Mr. Moore—The Danzenbaker cover is simply a flat board with metal cleats on each end. For a bottom-board I prefer a reversible one, made with one side ¾ entrance; the other side ⅝. The light bottoms are too flimsy.

A member—How do you manage to keep bees in the winter with that cover?

Mr. Moore—If you winter bees outside they should have some packing. I winter in the cellar; if you winter them outside you take the upper cover off, and put a super on there, and fill it full of packing of some sort, with the metal cover on top.

Dr. Bohrer—I think painting the bottom-boards and covers occasionally is a very good thing. I have used the Acme cover; it telescopes down over the top of the hive, and there is an inner cover to it; and between that upper cover and the inner cover, in winter time, you can pack it with paper. I have very often lots of newspapers and fill it full of them where I leave them on the summer stand, and in the summer season I put some grass on top of them. I do not want my hives to be in a dense shade.

As to bottom-boards, I don't send to the factory any more for bottom-

boards, but I go to the lumber yard and get lumber free from knots; it is about an inch thick; I get it the width of the bottom of the hive; then rip 2x4 piece of scantling in two and nail it on the under side and then put slats on; let it be the proper distance to form the entrance, and you have a board that will last for years, giving it a coat of paint.

Put four blocks of cement under each corner to keep them up out of the dirt.

A great many bottom-boards are made out of poor lumber and let the mice get through.

I go to the lumber yard and get the lumber myself. I sometimes order the lumber from one firm and the body and frames from another. I am not building up or tearing down firms; these companies all aim to do a fair business, but I don't want Acme covers made with less than  $\frac{3}{4}$ -inch lumber—the part of the board that runs down on the sides.

On top of that Acme cover I put galvanized iron, and about two coats of paint, and two or three thickness of paper underneath.

Mr. Moore—There is a bee-space over the top of the frames so that the frames set down, and there is  $\frac{1}{4}$  inch space between the top of that and the super-cover, so that the bees can go all over the frames.

Mr. Diebold—He means a cover such as is known as the Colorado cover.

Mr. Moore—The latest idea is to have what is called sealed covers; that is, the cover is sealed down over the brood-frames, and any packing you put on top is to keep the heat from getting out; the idea of absorbent cushions is practically done away with now.

#### Pickled or Black Brood in Illinois.

"Is there any pickled or black brood in Illinois?"

Mr. Moore—As I understand it, black brood and European foul brood are the same.

I found one colony of pickled brood this fall. Pickled brood is nothing that is contagious, or that there is any particular danger from. As I understand pickled brood, it is largely caused by moldy bee-bread.

Dr. Phillips—Nobody really knows; it is supposed to be caused by that,

but I don't think anybody knows; it is simply guess work. It apparently is not contagious. It does not need to worry us any.

Mr. Moore—I believe that black brood and European foul brood are one and the same thing.

#### Wintering Weak Colonies.

"Is it best to winter weak colonies out-of-door or in the cellar?"

Miss Holmes—It is best not to have any weak colonies.

Mr. Moore—The main thing in wintering bees is to keep the cellar uniform; it does not matter whether it is damp or dry; the uniform temperature should be as near 45 degrees as possible.

Mr. Kluck—Give them a lot of ventilation.

Mr. Moore—Give them plenty of ventilation so that the bees are quiet. If it gets too cold or too hot they will roar.

Mr. Diebold—My experience is that I have not the right kind of drainage; when a fall of rain comes my cellar gets wet so that it is muddy when walking around in it; I put the bees up high enough out of this. Every morning I make it my business, if it becomes necessary, to go down there and bail out the water; six or seven gallons each morning, and I keep probably four or five gallons of lime in it. I have a shelf wide enough to set the hives on; and I give the bees plenty of ventilation. I have known the thermometer in there to go down as low as 40 degrees above freezing, and as high as 48; fluctuating from 40 to 48.

I have taken them out in the spring when it is nice and warm weather, and have had them in fine shape. I figured that dampness was death to the bees, but having them high enough above the wet bottom, with plenty of ventilation, and distributing that lime through there was what saved the bees.

I turned my hen-house into a beecage, and I found they wintered in it first-rate, after I had boarded it up properly and used considerable sawdust and some leaves; but they required quite a good deal of attention. I think that the cellar is the best place for wintering bees, even though it is a little damp.



Mr. Moore—It does not matter about the dampness if you can keep the temperature up. A damp cellar with low ventilation is death to the bees.

Pres. Bowen—Keep the temperature up to how many degrees?

Mr. Moore—About 45 degrees; if you let it get down low it is bad.

Mr. Kluck—Were honey-boards on all your hives in the cellar, Mr. Diebold?

Mr. Diebold—There were super-covers on most hives. On those that didn't have super-covers, I used flat covers, something made after the style of the Danzenbaker, manufactured in Michigan. They all had deep entrances; I had an opening from 2 to 3 inches.

Mr. Kluck—A majority of bee-keepers take the cover off and put on a gunny sack.

Mr. Diebold—When I brought my bees out in the spring I found only one colony dead.

A member—How many colonies had you in the cellar when you lost the one?

Mr. Diebold—I had 46 last fall, and I think I wintered 10 or 11 in the bee-cage, and didn't lose any last winter; the rest were in the cellar, so that was 38 or 39.

A member—I suggest that the first hour of tonight's meeting be given to the question-box, and let the resolutions committee report at 8:30; they can be out during that time.

Mr. Stone—There are some things that should come before the Resolutions Committee that have not been attended to as yet. I asked that something be done about the time of sending out the reports. If the report is sent to a member in June or July, he gets the report that has been issued and he is a member next year when the other report is issued, and gets two reports, with one fee.

Mr. Kluck—In regard to these reports; when we have them printed and lying idle, it seems to me it is all right for those people to have them. If you have not got them, then I would not see that they got any; I would not go to the expense of re-printing them.

Mr. Diebold—As I understand, there ought to be a time limit as to when Mr. Stone is going to send out those reports.

Mr. Kluck—If you have them on hand, why not distribute them?

Mr. Stone—Who has a right to them, the man pays 25 cents, or any bee-keeper in the State? They all have the same right so far as the reports are concerned, but they do not have a right to a cloth-bound copy that the members have.

Mr. Kluck—Rather give them out than have them lying idle.

Pres. Bowen—There is one thing I would like to suggest; we are a long time in getting the reports.

Mr. Stone—We send out our blank applications for membership just as soon as we can after this meeting; then the members begin to send in their names, and we begin to form an idea of how many reports we are going to need for the members; we got within ten reports this year of what we have used; we have only 3 or 4 cloth-bound copies left. We could not guess that close if we sent out the reports in January when there are no members. After we know about how many we will want we put it in the hands of the printer, and we have to wait for them to get some jobs out that they have that are more urgent.

Mr. York—Are there not very few members coming in after the first of July? Suppose you make the end of the year July 1st? All members that come in up to July get the present report; those that come in after that, they will wait until the next Report.

Mr. Stone—Then, Mr. York, if you should join in June you would get the last report; and when the next report came out you would still be a member and would get that.

Mr. York—My dues would end July 1st.

Mr. Stone—Then that would cut those out; that would work if you passed such a ruling, and advertised it.

Mr. Kluck—In joining the State Horticultural Society you get the back numbers if it is for ten years back. When I joined it I got ten books. If you join today, and they have got five years back, you get the five books.

Mr. Stone—Ours would be the same if you pay the postage on them.

Pres. Bowen—If you want some action on that, Mr. Secretary, a motion had better be made. If we are going



to discuss it, a motion is in order to fix the time for sending out the reports.

Mr. Moore—You want the Resolutions Committee to discuss that and bring the same before the Convention, as I understand it, in the form of a resolution?

Mr. Stone—Yes, let it go to the Committee on Resolutions.

A member—Does not the State bear the expense of publishing these Reports? If that is the case, is it not to the advantage of the bee-keepers of the State to have them get into as many bee-keepers' hands as you can?

Mr. Stone—The appropriation is made for the benefit of the Illinois State Bee-Keepers' Association to pay for the expense of their meetings, the publishing of their reports—that means that it goes only to their members.

Mr. York—And for the inspection of apiaries.

Mr. Stone—And for putting down foul brood.

Convention then adjourned till 7:30 p. m.

#### Evening Session.

Convention convened at 7:30 p. m.

Mr. Stone—In speaking of the time of membership, we sent out a notice on our receipt card which reads:

"Received of the person to whom this card is addressed, the sum of \$1.00, a fee which entitles him to a membership in the State Association, and also in the National, and a copy of the last annual report;" for a while we had it "the next annual report."

Mr. Pyles—Make it the current annual report.

Mr. York—Yes, or "This year's annual report."

Mr. Stone—If we make it for the last annual report, that brings it in for the whole year, all that join this year.

Mr. York—The last annual report is past.

Mr. Moore—The resolution reads:

"Resolved, That the fiscal year of this Association in the payment of dues be counted from one annual meeting to the next. That is, those paying dues at this session, and between now and the next annual meeting, be entitled to the published report of this meeting only."

Mr. Becker—I think that is proper and correct. All of the Reports from

all of the associations being published in the month of February or March, he gets that Report. Now, then, if he was to get the other Report, he would get two Reports.

Mr. Kluck—What will the man get that joins next September or October? He wants this Report. All that belong to our association are in that same condition. We simply have to withhold our dues and not be members of this State Association, and come in at the meeting today.

Mr. Kluck—When do you have your annual meeting?

Mr. Kluck—In October; we pay a few days before this convention; the new members that come in want next fall's Report.

Mr. Becker—Suppose you had your convention in October, and you bring your membership in here for 1910 and 1911, you get this Report for 1910 some time next spring. Would you be entitled, under the same money, to get the Report in 1912?

Mr. Kluck—No, we want next year's report.

Mr. Moore—In reporting new members early in September or October or the first of November, before the convention, state that you want it to date from the day of the convention; then they would come in for the next Report.

Mr. Stone—Could not something be added to that, and for affiliating societies from year to year?

Mr. Pyles—That would not affect this at all.

Mr. Coppin—When I was out inspecting I got 6 or 7 new members, and I gave them to understand that they would get a copy of the next Report when it was published, because we would have to have a lot of copies.

Mr. Kildow—I told all the members I got, if we had copies enough left of the last meeting they would get a copy; if not, they would get the Report for next year.

Mr. York—How many would get two Reports; what has been the record in the past?

Mr. Stone—I could count it up in just a minute or two. It happens only once in a man's membership, anyway.

Mr. Pyles—They should not expect two Reports for the price of one membership. Suppose he drops out of membership for a month or two?

Mr. Stone—I don't see why it could not be put in there just as we first talked about it, to have the year end with the first day of July; all that came in after that, that would be for the ensuing year, get next year's report.

Mr. York—We might try that.

Mr. Moore—You can change those dates any time you like.

Mr. York—If Mr. Stone thinks that from July 1st to July 1st will be better, we might try that this year and change it next.

"Resolved, That the fiscal year of this Association in the payment of dues be amended to read from July 1st to July 1st."

Mr. Kluck—If in next September or October we join, we would be cut out for 3 months.

Mr. York—You would not get anything any way those 3 months; you wouldn't get the Report.

Mr. Moore—Your dues are paid until next October; your members will all get a copy of this year's Report and those that come in next year in October would get a copy of next year's Report.

Mr. Pyles—It seems to be a pretty hard matter to suit everybody. If you have it from the first of July to first of July, it will carry us to the first day of July; if you say from the time the convention meets, your dues will last from one annual meeting to the next.

Mr. Stone—I believe it is the best the way that resolution reads.

Pres. Bowen—I would suggest you table this resolution, and let the Secretary use a little common sense in sending out the Reports.

Mr. Moore—I think the way we have been handling it in the past is as good as any—a few extra Reports don't amount to a great deal.

Mr. Stone—If this meeting takes action, we can have our letterheads, etc., printed in a way bee-keepers will understand, and they will know when they are paying their dues what Report they will get.

Mr. York—You might try this for a year.

Mr. Kildow—I think it will have to be, from one annual meeting to another.

Pres. Bowen—Let the report stand as it is:

"Resolved, That the fiscal year of this Association in the payment of dues be counted from one annual meeting until the next; that is, those paying dues today and between now and the next annual meeting, be entitled to the published Report of this meeting only."

Resolution passed.

Mr. Moore reads second Resolution:

"Seeing that delegates having their railroad fares paid from affiliating societies has not resulted as expected; therefore, be it

Resolved, That for the future the rule be dispensed with, except so far as the Executive Committee may invite them to take a place on the program."

Resolution was adopted as read.

Mr. Moore reads third Resolution:

"Resolved, That we express our appreciation of the attendance of Dr. E. F. Phillips, representing the Apicultural Investigation of the Bureau of Entomology of the Department of Agriculture, Washington, D. C.; his wise and helpful suggestions, and also offers of government co-operation in everything relating to bee-keeping, and the ridding of our State of the devastating disease of foul brood among bees."

Resolution adopted unanimously.

Mr. Moore reads fourth Resolution:

"Resolved, That we respectfully ask the State Agricultural College and Experiment Station to take up bee-keeping as a line of teaching and investigation, with special emphasis on bee-diseases."

Pres. Bowen—If there are no objections the resolution will be adopted.

"Resolved, That the committee on legislation of this Association confer with the State Entomologist in the preparation of the Bee-Disease Bill to be presented to the Legislature during the coming session."

Resolution adopted.

"Resolved, That it is the sense of this Association that the bee-disease inspection rightfully belongs in the office of the State Entomologist, and that we urge the State Entomologist to give us his aid, both during the preparation and the passage of the proposed Bee-Disease Bill in the next session of the legislature."

Pres. Bowen—If there is no objection to this resolution it will be adopted as read.

"Resolved, That the Association do everything possible in addition to the proposed inspection legislation to educate the bee-keepers of the State in the diagnosis and treatment of bee-diseases and to this end that we co-operate with the State and Federal Officials interested in this line of work in the distribution of literature on this subject."

Pres. Bowen—If there is no objection resolution will stand adopted as read.

Mr. Stone—I have a resolution passed at meeting of the Northern Illinois and Southern Wisconsin Bee-Keepers' Association, October 19, 1910.

"Whereas, Our present Foul Brood Law is largely ineffective.

Resolved, That our foul brood Inspector be provided with power to examine any colony or colonies of bees, that are suspected of foul brood, and to treat them, and, if necessary, to destroy them.

Resolved, That the foul brood Inspector should never destroy a colony, when in his judgment it can be cured.

Resolved, That it is the sense of the bee-keepers of this State that our Legislature, at its next session, make such change in the present law as will remedy this defect."

Mr. York—I move that that resolution be referred to the Committee on Legislation, for their information.

Pres. Bowen—If there is no objection it is so referred.

### **The Chicago-Northwestern Report.**

Mr. York—There is a matter I would like to bring up as to the report of the Chicago-Northwestern convention that you have heretofore published. I would like to inquire as to that procedure for this year, whether it will be the same or not; perhaps the Secretary could inform us on that, or does it require a motion?

Mr. Stone—I don't believe any change will be made; if the Chicago-Northwestern see fit to affiliate with our Association, at the rate of 50 cents per member; it lies with them whether they want to join in a body at 50 cents and have their report in our State Report; it will lie with them.

Mr. York—It is all right then; what I want to do will be to get them to

join at 50 cents instead of at 25 cents. I think they will be glad to do so.

Mr. Kluck—I would say for the benefit of the members, we have "due days"; some time in the last of May or first part of June we have a meeting in the vicinity of Freeport; we have one at Rockford that is independent of our annual meeting, and we try to collect dues there and get new members; then at Freeport we have it at some bee-keepers' house, an out-of-door meeting.

### **Mixed Workers and Drones.**

"What is the cause of a queen producing half workers and half drones in worker cells?"

Mr. Phillips—Does that mean individual or total half drones, half workers? There are queens which produce individuals, workers on one side and drones on the other. One eye drone, one worker; one wing drone, one worker.

Mr. Kluck—What are they good for?

Dr. Phillips—Nothing. I had some the past summer; it has been reported a great many times; I got a shipment of them from a man in Florida the past summer; nobody knows why that occurs.

Mr. Moore—It is a freak of nature.

Mr. York—I think they must have practiced "shaking bees," and shook them up too much, and they got mixed!

### **Marketing Honey.**

"How to bring about a uniform way for marketing honey at a uniform price?"

Mr. Moore—Have a honey-producers' association for handling the honey crop and selling it.

Mr. Diebold—That is my idea of it; that is the only way to handle it.

### **Bulk Comb Honey.**

"Has any one tried producing bulk comb honey; if so, with what result?"

Mr. Diebold—I tried last summer on a larger scale than I had heretofore. I must say I got more honey doing it in that way than in a sectional hive, but I find it is a great deal of work to cut it out and put in glass fruit-jars. It takes a great deal of talking to convince people that it is a nice article, but after they buy a jar, they say to

me it is the finest thing they ever ate.

Mr. Kluck—What will they say when winter time comes, and it candies?

Mr. Diebold—I heat up my honey to 160 degrees Fahrenheit, and after it gets somewhat cool, about 80, I pour it on the comb honey and seal it up and label it "Comb Chunk Honey." I think in a cool room it would candy again.

Mr. Moore—Two years ago (1908) I purchased and sold lots of chunk honey. There are lots of sections that are imperfect, and I suppose I had probably 600 or 800 pounds of that kind of honey. I had no difficulty whatever in disposing of this chunk honey at Galesburg; I sold lots of it in 25 and 50 pound lots; I put it up in cans and run extracted honey on it.

Mr. Kluck—At how high a price?

Mr. Moore—12½ cents a pound, 50 pound lots. I put it up in 10-pound pails, also in larger sizes, some 25 and some 50. The same persons I sold to in 1908 asked me last season and this for some of the same kind of honey, so that I know it gives good satisfaction; and I could sell, if I had that honey, thousands of pounds right there. You take section honey and often it will sell, in a big crop year, readily in larger cities at 18 to 20 cents a pound or section, and generally they sell them by the section; that makes it rather expensive when you take off the weight of the wood, where, if people can buy bulk comb honey at 12½ cents a pound in 25 or 50 pound cans, families will use it up, and when that is used, they will call for more. I think that the working class of people will buy it in that way in large quantities. Of course, there will always be a demand for fancy comb honey, because some people will not have anything else, and it is a pleasure to produce that kind of honey for that market. I think it is a paying proposition for bee-keepers to produce bulk comb honey.

Pres. Bowen—While I do not make a specialty of bulk honey, where I have defective sections, or by accident, or otherwise, I have any trouble in disposing of them, I have done something in this line of bulk honey, but I never get less than 15 cents a pound for it. I am not surprised that Mr. Moore always sells his—at 12½ cents retail;

there is no reason why you could not get 15 cents for good bulk honey.

Mr. Moore—Two years ago we had a big honey crop; section honey retailed at 15 cents. You could buy fancy section honey for 15 cents.

Pres. Bowen—The reason was that men who had honey did not ask more for it; a few men have 6 or 8 or 10 hives; some of them get 10 cents for their honey, and are satisfied, but those men are soon out of the way. Some people say to me, "Why, we got ours for 12½ cents." I reply to that, "You had better get some more there." And they tell me, "They have no more"; then they pay me what I ask for it, if they find they cannot get it for less.

Mr. Diebold—Two years ago I produced a good honey crop; I bought a whole lot of cans and canned a lot of this chunk comb honey; I labeled it nicely, but when I took it to the stores, they would say, "We can't see it. If we could see it our customers would like it very much better, and we could sell it much more readily." So I am putting it up in Mason jars, and it looks pretty; I can sell it for a half dollar, 3 pounds; two pounds of comb honey in it, and one of extracted; to merchants I sell it for 45 cents, and take it out in trade.

Pres. Bowen—The main thing is to ask a good price for it.

Mr. Diebold—I have a brother bee-keeper who has a couple of daughters and sons to help, and he has a lot of bees and got a lot of honey. I got 15 cents a section for my honey, and this man offered his for 12½ cents a section. Farmers come in with four or five gallons of honey and get 10 or 11 cents for it, and consequently they get the market, and I had to hold mine. I hunted around and found a market in Springfield for it at my price. It often happens that the man who hasn't a whole lot of honey offers it from 10 to 12½ cents a pound, and in fact at any old price he can get. We should educate them to ask more; I have to wait until that man gets all out of honey before I can find a market for mine.

Mr. York—It seems to me it would be a good thing for Mr. Diebold to buy out that other honey at 12 cents and hold it and then sell it for 15 or 16 cents.

Mr. Coppin—That is what I was going to suggest.

Mr. Diebold—I have had a notion of doing that; but I said, "I won't monopolize things."

### Honey and Foul Brood.

"How much honey would there be on the market if it were all barred out where foul brood is found?"

Mr. Moore—I think that question refers to the clause in the foul brood law, to prohibit the sale of bees and honey from foul-broody apiaries.

Mr. Stone—That is not in our foul brood law.

Mr. Moore—No, it is the one that Dr. Bohrer brought, and also in some of the others, in some of the Western States. In their foul brood law they prohibit the sale of honey from apiaries where foul brood exists.

Mr. Kluck—To a certain extent that would work a hardship.

Mr. Moore—in case a bee-keeper has fifteen or twenty thousand pounds of honey—fine first-class honey—and foul brood is discovered in his apiary, he would have that honey on his hands. What would he do with it?

Mr. Pyles—If he found tuberculosis among his cows, would it work a hardship for him not to sell the milk? Would you want your neighbor to buy honey of you where you find you have bees infected with foul brood?

Mr. Kluck—Suppose you have a dairy, say 50 cows; two, three or four of them have tuberculosis; you simply throw out those three or four or five, whatever the number may be, and the other 45 or so are all right. You go on and sell your milk, and so it will be with the sale of honey. A man may have 50 or 100 colonies; he may have 10 per cent of these colonies diseased, but the other 90 per cent are all right; he surely will want to sell that honey, and it would be working an injustice for him to have to keep it.

Mr. Coppin—I got 18,000 pounds of honey one season, and I discovered I had foul brood among my bees; well, I would have felt pretty badly if a bee-inspector should have come in there and said: "Why, you cannot sell any of your honey." I would have been "up against it." I don't think any bee-keeper would want to see a law to that effect passed in the State of Illinois. I should not vote for

it. I think we would be voting against our own interests, because you are liable to have a case of foul brood—to find a little of it, almost any time in your apiary where you have many colonies of bees. I think we should endeavor to stamp foul brood out, but not add that to the law.

Mr. York—As I understand it, there is nothing detrimental in honey from a foul brood colony to the human system.

Dr. Phillips—It does not hurt the human being; it is different from diseased milk. Sections of honey that have been drawn out, that have no honey in them, you can say will transmit the disease; particularly drawn sections that they use for bait will transmit the disease.

Mr. Moore—it would be quite a hardship on a man with a big crop of honey, 1,500 or 1,000 pounds, to have his apiary inspected in July, and find foul brood; he would not know what had caused the infection, or know that it was infected; it would be a hardship.

Mr. Pyles—The question to my mind is this: How would you, gentlemen, having in the neighborhood of 150 or 200 colonies in your yard like to have your grocer ship in honey from foul broody apiaries and have that honey scattered over your neighborhood and give to the other bees foul brood?

Mr. Coppin—Look at the map there now (hangs on the wall, by Mr. Kildow). Those two maps hanging there—look at those. Probably not half of this State has been examined. See how much honey you could find in the State of Illinois that would go on the market if you could only sell it where there was no foul brood.

Dr. Phillips—The way I understand it, under the law it would apply to whole regions only, not to individual apiaries and if there was such a law passed bee-keepers in the State who wanted to sell honey would be mighty particular that the disease was not in their yard.

It is not a fair deal or a square deal to ship that foul-broody honey on the market and let some one get the disease in their apiary from that source. If you have shipped honey from a diseased apiary you have been doing harm to some one else. This disease has been spread all over the United States.

I would bar out diseased hives; a

man must have his apiary inspected before his crop can be taken off and sold; that is pretty hard; we want to work this thing conveniently to the bee-keepers yet at the same time unless you know that honey comes from pure, clean colonies, you ought not to think of selling it.

Mr. Diebold—What protection would we have against another man that exports into the State from the outside?

Dr. Phillips—What protection do you have on nursery stock? It must have a clean bill of health before it comes in.

Mr. York—Might have "local option" on the thing!

Mr. Moore—That is one thing that this legislative committee discussed in talking over the foul brood bill, that no bees should be allowed to be brought into this State without a clean bill of health.

Mr. Pyles—Are we willing to ship them out?

Mr. Moore—If a man with foul-broody colonies in this State should ship them out, I don't know that we can stop it.

Dr. Phillips—You can; you can prohibit the railroads from taking them.

Mr. Moore—That should be incorporated in the law.

Dr. Phillips—Bear in mind in this connection—that a small amount of the disease has been spread by shipping colonies; probably 90 per cent has been spread by shipping honey.

Dr. Bohrer—The question that is before the convention now for discussion is one, of course, that I don't like to discuss; and I want to say this at this time: I have probably 100 pounds of infected honey in a cage I have at home; I have it closed up and sealed up, and the question arises with me, what to do with it. I don't believe I should sell it. I don't want to do anything on this green earth that will submit my neighbors' bees to danger, and will not; I think I may bore a hole and pour every ounce of that honey in it, beyond the possibility of its ever doing any harm.

Now I have some good honey there, so far as using it for table use goes; I am not afraid to use it at home, because it does no one any harm. I am not afraid to use it on my own table, but I don't know when I would ever use up a hundred pounds of it; I am not going to sell it; I have made up my mind I would not do that. I could

sell it, and no one would ever detect it, but I have made up my mind I will not do this; I don't think I would be doing right.

Let every man think and act upon this subject. You don't want to take any chances; If I can't use this honey up that I have, I think it is better to dig a hole and bury it. I believe that this contaminated honey is the means of spreading the bee-disease throughout the United States more than any other one thing, and I feel convinced that honey being shipped from diseased apiaries is responsible for a great deal of trouble. You must get people to understand that they must do the right thing themselves if they expect other people to do right. As I have said before, each individual bee-keeper should be educated, and we should seek to educate the bee-keepers in our community; try to get everybody familiar with the industry of bee-keeping, and then we will get the protection we so much need; I should think that we ought to be careful in the smallest detail.

I believe if you have honey that is contaminated, the only safe thing to do is to destroy it, or disinfect it by hard boiling; it can be disinfected by boiling with water for a half an hour; I have boiled it for 35 minutes; I won't stop at 20 or 25; I do the same with frames; some gentleman said he was suspicious of this thing of boiling frames; I keep them under boiling water for 35 minutes; I used some that I had boiled in this way, and never had anything of the kind appear again.

You can't always readily tell the disease. I had a strong colony—Jumbo 10-frame hives—and the bees had gone to work in the super and reached the capping stage, and while the bees were energetically at work bringing in the honey, all at once they stopped working; they crawled about the entrance of the hive listlessly; and when I opened it I found foul-brood. You may rest assured that there is something wrong if you see the bees listless in the midst of a honey-flow, and it should be given immediate attention. I thought I would have to burn them up and get rid of that kind of hive, but I boiled them up and they were all right for us again; I think I have performed a cure.

As to the honey—we have used some of it, but I won't put it on the market;



I don't think I would be doing right to my neighbor who has bees, or even if it was to go out of the State.

I think we should go after this thing, and stamp out foul brood. The man who thinks he can get rid of it easily is mistaken. I have read everything on the subject I could find, and have been watchful. None of our laws along this line are perfect; we should be clothed with authority to go into a man's apiary and compel him to make the effort to get rid of foul brood if his apiary is infected with it, and I think we are on the right road now, if we will follow the suggestions given us by Dr. Phillips today.

Mr. York—I don't think there is anything to hinder Dr. Bohrer using the small amount of honey; he might make honey-vinegar out of it.

Mr. Diebold—Or extract it or boil it.

Dr. Bohrer—I might do that but I won't sell it.

Mr. Diebold—I suppose if we had legislation along the line of prohibiting the sale of honey in an apiary where there was foul brood, it would work a hardship for two or three years, but after that it would be gotten under control; but if it were not, by that time I suppose there would be a class of bee-keepers that would get together and would vote to repeal the law and we would get back to where we are now.

#### Disinfecting the Honey-Extractor.

Pres. Bowen—I would like some one to suggest in the matter of extracting honey, how would you disinfect the extractor?

Dr. Bohrer—I can't tell you the amount of boiling water I throw into mine and run through it, and I think I have it thoroughly infected. It may be I don't use hot water enough; we pour 20 or 25 gallons of boiling water—not scalding—in the extractor.

Dr. Phillips—I should think it would wash away the infection.

Dr. Bohrer—I took every screw and bolt out of that extractor and put them all through the hot water. And every tool and everything I used about the hives. I stick them in the blaze and heat them; I use carbolic acid on my hands after hauling the colony; I keep a pail sitting in the apiary and it has probably a 5 to 10 per cent solution.

After I have been working about a

hive that has been infected, I stick my hands into a solution of carbolic acid and water, and took my knife and scraped my nails—and I have shampooed my hair. You cannot be too careful. I do this when I leave an infected apiary; I first wash with soap and use carbolic acid after that, and when I go from one hive to another I dip my fingers in the solution.

Dr. Phillips—It is not necessary to disinfect your hands if you keep the honey off from them. The carbolic acid is safer than water, because the bees will not follow that; a 5 per cent solution of carbolic acid they will not touch, while they will water, and therefore it is better. It does not disinfect in the short time it takes to wash off the hands.

Mr. Moore—I have been informed that foul brood spores were alive after being in a strong solution of carbolic acid.

Dr. Phillips—After being in a solution 5 per cent carbolic acid they are still alive.

#### Concrete Hive-Stand.

Mr. Stone—If everything else is finished, I would like to ask the question that I asked at the National, and did not get any answer from anyone who had a better hive-foundation or stand than I have. I have a concrete foundation on the ground for the beehive to stand on. I would like to ask if any one here has any way of making a concrete hive-stand that is better than mine.

Mr. Bohrer—Give yours.

Mr. Stone—In the Chicago-Northwestern meeting, last year the question came up, and they suggested a concrete slab on the ground 2 inches thick, and Dr. Miller said that would rot the hive; if you had a flat surface, or a bottom-board to stand upon, that holds the water, and both the bottom-board and the stand would rot—and the whole discussion ended right there; they didn't decide anything, nor at the National.

I had a mould to make the concrete foundation for bee-hives, and for that reason I paid particular attention to what was said there, having what I thought was so much better, and would probably please Dr. Miller. I thought it was a pretty good thing, and I liked it. I am delighted to go to

a stand of that kind and manipulate a hive that is on it. It is very simple to make. (Illustrating:) It is shaped something like that, and the hive rests across the two ends of it; I have it flat on the bottom; it runs straight up on that side and down this way, and at this end it makes a lighting place for the bees. In hiving bees I shake them on the ground and they walk up that incline into the hive.

Mr. Kluck—How is it in the summer when the sun shines on it?

Mr. Stone—It does not get very hot. I let the hive project an inch all the way. I have the front end about an inch lower than the other.

Mr. Diebold—What is the cost of the hive stand?

Mr. Stone—Ten cents.

Dr. Bohrer—I have used these: (illustrating): This represents the front block; there is a slope from the top of it down to the front; it makes a good landing for the bees; the block for the rear end I make about 5 inches square; you have to level them and then set the hive on them. I mix the cement 1 to 5—one of cement to five of sand. Drive sticks around the mold after you have smoothed off the top, and in five minutes time you can take the boards away and the block is completed.

That makes a very hard block; if you want to move them you can carry them wherever you want. The bees running down here (illustrating) in front of it, if they are heavily loaded they can crawl right up; the bottom-board rests right there; it is flat on top; I make them right on the ground. I make it slant from the mouth of the hive to the ground; the bees will run right up; you see them tumbling end over end in the grass, and they will run right up that block and into the hive. If you are not careful to level it your hive will not rest level.

Mr. Stone—Your foundation is in two pieces?

Dr. Bohrer—It is in two pieces. The first I made was something after the plan Mr. Stone speaks of, in molds, but toads would scratch under them; there was one as big as my fist; it was a fat fellow. He was sitting there; the foundation was sloped and, as Mr. Quimby says, "looking as indifferently as could be." Every once in awhile that tongue would come out—and a

bee would go in. You can keep chickens out, and everything of that kind, where it is only 5 inches from the ground. I remember that I had a cross colony; the bees would come out and go after me, and I didn't know what caused the trouble, until I found there was a hen under there, and it made the bees mad. Another time I found a great big snake, over five feet long.

Mr. Stone—I have my foundations about ten or eleven inches high, or about twelve inches at the back end so that the rain will not splatter the dirt up and discolor the hives.

Dr. Bohrer—Langstroth had legs on his hive; the back legs two inches longer than the front legs.

Mr. Kluck—I have discarded alighting boards in my apiary for probably 15 years; when the bees get used to it they can go in just as well. I don't believe bees require an alighting board.

Mr. Coppin—I think it is very necessary to have an alighting-board; you watch the bees, if they have no alighting-board, a great percentage of them will drop on the ground before they get home, and they are apt to stay there, and the rest make a second flight to get home; the alighting-boards I make out of shingles, generally; the bees drop on the board and crawl in.

Mr. Kluck—If you try half of the apiary with, and the other half without, you will see.

Dr. Bohrer—About the percent of cement—I use about two parts of cement to three of sand.

Pres. Bowen—Very strong, that is.

Mr. Stone—I mix them about that way, and put in about four parts of crushed stone or gravel.

Dr. Bohrer—Localities sometimes supply you with those things.

Mr. Diebold—I would like to have Mr. Pyles give us a little information on hive-stands.

Mr. Pyles—I have no information. I think you can get just as good honey with one kind of hive-bottom as with another. One may not be quite as easy as another to handle. I would make use of any old board if I did not have any particular kind of stand. I try to get along with what I have got.

Convention adjourned until 9:00 a. m. the next morning.

**Second Day—Morning Session.**

At 9 a. m. Pres. Bowen took the chair, and, having asked the Convention to come to order, called for report of Auditing Committee.

Mr. York—We are not able to agree exactly. We cannot figure it out and make a balanced report; your Auditing Committee are going to ask you this morning to permit them, after the close of the Convention, to straighten it out, and have the report adopted in the proceedings if they can get it so as to be so reported. There is a slight difference in the figures.

We will remain this afternoon and will try to get it straightened out; if you will pass some kind of action permitting us to make complete the report after the close of the Convention.

It was moved, seconded and carried that the Auditing Committee be permitted to complete their report after the close of the Convention, and have it appear in the proceedings of this meeting.

**Exhibits and Judging at Fairs.**

Mr. Stone—There is one matter, whether it is important or not; the different States are adopting our Code of Rules for judging honey at the fairs, and there is one item in it:

"By style is meant neatness of the sections, freedom from propolis, etc. Under this head may also be considered the size of the section. The  $4\frac{1}{4} \times 4\frac{1}{4}$ , being the standard, should take the preference over all others, and  $1\frac{7}{8}$  to 2 inches in width over narrow ones."

I recommend that that latter clause be stricken out. There should have been a committee appointed to look over the whole thing, because we know that the section is  $1\frac{7}{8}$  to 2 inches.

Mr. Coppin—I think it ought to be scratched out entirely. That would not give room for any improvements in regard to size of the section; you might as well keep quiet if you saw room for improvement, because it would be ruled out by the fair anyway.

Mr. Moore—I don't think the size of the section should cut any figure at all in governing.

Mr. Kildow—I think the section business ought to be cut out.

Pres. Bowen—I think the  $4\frac{1}{4} \times 4\frac{1}{4}$  is the best yet; every one does not think

so. I think every one should have such a size section as he thinks in his own mind should be used, and I don't think we ought to be handicapped by any such ruling as that. I never use anything but a  $4 \times 4\frac{1}{2}$  section; that would bar me out the same as those who use  $4 \times 5$ .

Mr. York—I move that that part of the rule be stricken out.

Ruling was so made and carried.

Mr. York—I was the judge of a honey exhibit at the last Illinois State Fair, and I noticed they did not use those rules at all; I wonder why it was. Heretofore the Superintendent furnished me with a set of rules, points, etc., to judge by.

Mr. Stone—It is because we didn't bind them to it.

Mr. Kluck—I would like to ask Mr. York, did you rule out the other size sections?

Mr. York—I never saw any rules at all. They said to go ahead and do what I think is best, and I did. I guess everybody was satisfied, but I don't know.

Dr. Bohrer—It has been my lot to be judge at two State Fairs for about four years in Kansas, at Hutchinson and Topeka. We have two rival organizations there. That question never comes up there at all, and I don't know whether I would feel like inspecting by a rule of that kind. I know there are some other rules that have been detrimental, and that I have respected because they made their entries.

I remember one instance in the matter of preparing beeswax; one man had made a Teddy Bear in beeswax, and they allowed him to enter it. I said, "There is no skill about that; it is simply a ready-made toy of beeswax." I said, "How did they allow you to enter it?" "But as long as they did, we have got to consider it."

They had the finest exhibit I about ever have seen anywhere at Hutchinson this year, and it was put up in sections like that (illustrating). I believe that is the Danzenbaker section.

Mr. Moore—That is a little narrower.

Dr. Bohrer—The  $4\frac{1}{4} \times 4\frac{1}{4}$  section was the size of a majority there.

Pres. Bowen—It is everywhere, so far as that goes.

Dr. Bohrer—That question was never

raised at all; I think it would be doing a gross injustice to bee-keepers to attempt anything of that kind. Some of the prettiest honey I have ever seen was in  $4\frac{1}{4} \times 4\frac{1}{4}$  sections, and some beautiful honey in larger sections I have seen.

Mr. Diebold—My experience has been with the  $4\frac{1}{4}$  and the Danzenbaker section; also  $3\frac{5}{8} \times 5$ , known as the Ideal; also with the  $4\frac{1}{4} \times 4\frac{1}{4}$ . I find the  $4\frac{1}{4}$  hard to clean the propolis—it takes longer time. The others I find tip over very easily on the table where they are sitting; but I would prefer the plain sections,  $4\frac{1}{4}$ , and the  $3\frac{5}{8} \times 5$ .

Mr. Siebold—Almost all of our dealers, when you send for sections, send the standard section, which I believe is  $4\frac{1}{4} \times 4\frac{1}{4}$ , open on two sides. If you don't name what you want, they will send you that kind, which is considered by almost all of them, I believe, as the standard section.

Mr. York—While we are on this premium list, I may say it has been suggested to me that the premium for handling bees at the fair be omitted hereafter, and that amount of money distributed on something else. At the last fair there was only one of the exhibitors prepared to handle bees, and the weather was such that it was not considered best to have them handled at all while I was present. I believe he got the premium for bringing those bees there, just the same. There was no education about it at all for anybody. It has been suggested that that money be put on some other exhibit, and not for handling bees in a cage.

A member—What premium did he get?

Mr. York—\$15.00 was the amount offered. But there was no competition at all.

Mr. Coppin—Where did you get your information that the bees were not handled?

Mr. York—Well, they were not handled when I was there; the weather was not good enough.

Mr. Coppin—They were handled every day.

Mr. York—They were not handled while the judge was there, and there was only one exhibit.

Mr. Coppin—There has not been but one exhibit, and Mr. Werner has been the man doing that; I brought a colony of bees for another purpose, and as

he was not there, I had made my entry thinking he might not come.

Mr. York—I am not criticising the exhibit; I did not know until now that they were handled there at all during the fair; they were not handled when I was there, so no award could be given; it was received, I suppose. It seems to me that handling bees at fairs does not amount to much any way; there are only a few people around the cage compared to the 50,000 people there; probably only 25 or 30 ever see such exhibits. It is a good deal like extracting honey on the ground; I don't think it amounts to much. I doubt if five people saw the extracting done; \$2.00 is the premium, I think, for that. It is nothing to me, of course.

Mr. Coppin—When the judge is there, the judge decides who should get the premium, and the bees have to be manipulated every day in the week outside of the day the judge makes his decision. I think these exhibits are of much interest. When I was there the people were crowded around the cage every day.

Mr. Becker—I move you that this exhibiting of bees in cages and manipulating bees in cages be left to the Executive Committee; they have to do the work anyhow; when they meet again they can decide what to do.

Motion seconded.

Mr. Bohrer—Before the question is put, I want to say that I have seen a good deal of this handling bees in cages by men who are not honest. If they would tell the people WHY it is they handle the bees that way it would be educational but they do not, oftentimes. A man who was in a cage manipulating bees, at Topeka, Kansas, put a lot of bees in his bosom, and he spread himself out and said: "I will give \$10.00 to any one that will do this." He wanted to make the people believe that no one but he could do this; that he had sort of hypnotized those bees, and that nobody but he could handle them in this way, and he was nothing but a humbug—there was nothing educational about that; especially, on a Fair ground, where you want to disseminate knowledge, and give a lecture on the habits of the bee and its management. Don't try to fool the people into believing you

are the only man who can do this, but have some one give a scientific lecture, and one that is educational.

Pres. Bowen—It has been moved and seconded that this matter of exhibiting bees on the Fair Ground be left to the discretion of the Executive Committee.

Motion.

Mr. Stone—I think that will be all right. I will tell you why we got this premium. Mr. E. R. Root was talking with several of us at the National Beekeepers' Association Convention when it met in Chicago, several years ago, and was telling about the exhibit that he made at a County Fair in Ohio, and he said it took a good deal of courage for him to go into a cage with a hive of bees, without any hat on, and his sleeves rolled up to his elbows, but he says he subdued the bees and handled them all right. He spoke of the race that was going on at the race track, and that he had the whole crowd from there, and some one from the race track came over and asked him to dispense with the handling of bees until the race was over, that it was too attractive!

I would like to know if Mr. Werner has not had a pretty big crowd every year? I have heard people say at the Fair, "Did you see them handling bees out there in the Fair Grounds." I think that it should be made known what time in the day this will be shown, when it is to be done. If left with the Executive Committee they will manage things the way they think best. We have these cages on hand, made of copper or brass wire, they cost \$54.00.

Dr. Bohrer—Do you ever exhibit bees without the cage? I have seen that done.

Mr. Werner—I generally make two exhibits demonstrating the handling of bees, one with healthy bees, the other foul brood, and was paid only for the one and not for the other. I have always had a very good crowd; mine was educational; I demonstrated to the people from the beginning to the end, showing them how to handle the bees and how to get at them. I always had a number of people around the cage. Every afternoon the exhibit was at two o'clock, and the people were there and were interested in seeing what was being done. I set up a

colony of foul brood bees, and a colony of good bees, and I demonstrated how to cure foul brood, and so on.

Mr. Stone—They ruled that part out; we don't want foul brood handled.

Motion was repeated, put and carried.

Mr. Pyles—Last year the election of Foul Brood Inspector was taken up before the general election of officers, for the simple reason a number had decided to keep the two offices separate, and I move you that we proceed to the election of officers, first the election of Foul Brood Inspector.

Motion seconded.

Mr. York—I think Mr. Pyles said that last year you elected Foul Brood Inspector first.

Pres. Bowen—If there is no objection we will proceed with the election of Foul Brood Inspector.

Pres. Bowen—We are open for nominations under the head of Foul Brood Inspector.

Mr. Kildow was nominated.

Mr. York—I move if there are no other nominations the Secretary be instructed to cast the ballot for Mr. Kildow.

Motion seconded and carried.

Pres. Bowen—We are now under the head of nominations for President of this Association, whom will you place in nomination for President?

Mr. Coppin—I nominate Mr. C. P. Dadant.

Motion seconded and carried.

Mr. Moore—I move that the Secretary cast the vote of this Convention for Mr. C. P. Dadant for President.

Motion seconded and carried.

Mr. Becker—It has always been the custom and rule that the salary of the Secretary be fixed before we make the nomination or election. I move that the secretary's salary be fixed for next year the same as for last, \$75.00.

Motion seconded.

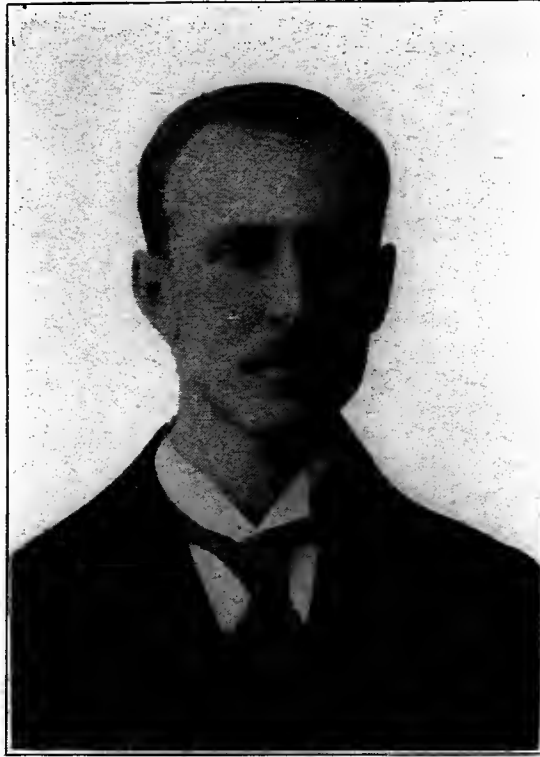
Pres. Bowen—It has been moved and seconded that the salary of the Secretary be fixed at \$75.00, the same as last year.

Motion put and carried.

Mr. Stone—Now that my salary is fixed, the salary of the Treasurer should be fixed also.

Pres. Bowen—What has your salary been, Mr. Becker?

Mr. Becker—\$25.00.



A. L. KILDOW,  
State Foul Brood Inspector for Illinois.

Mr. Kildow—I move that the same salary be fixed for the Treasurer's salary as last year.

Motion seconded and carried.

Pres. Bowen—We are now open under the head of nomination for Secretary.

Mr. Kildow—I move that our present Secretary be nominated for this office next year; he seems to understand the business better than any other man we can put in; he is tried and true. I move that we keep him as our Secretary.

Mr. Stone—I hate that. I keep hating it more every year. The burden that is being put on the Secretary all the time is getting bigger every year, and Dr. Phillips is going to make me a lot of trouble if I am elected Secretary, and I am just looking after a young man whom I can throw this onto—some one who will attend to it, and then I am going to resign, that is, if you elect me. I don't see any way of crawling out of it now, and fulfill my duty if I am elected, and therefore I shall not say anything; but if you can find a young man I would consider it a favor if you would put the secretaryship on somebody else.

Pres. Bowen—We have closed under the head of nomination for secretary unless you want to make the election by acclamation.

Mr. Moore—I move that the President be instructed to cast the vote of this Association for Mr. James A. Stone for secretary.

Motion seconded and carried.

Mr. Diebold—Would it not be a good plan to pay the treasurer a commission on the money he pays out?

Pres. Bowen—That matter has been fixed, Mr. Diebold.

Pres. Bowen—We are open for nomination for Treasurer.

A member—I nominate Mr. Becker.

Mr. Moore—I move that the Secretary be instructed to cast the vote of this Association for Mr. Becker.

Motion made unanimous.

Pres. Bowen—We will now proceed in the usual way to elect the vice-presidents. I think it is a poor way of doing it. That is, we vote at one time for five for vice-presidents and the five highest are elected, holding the positions in the order of the number of votes they get.

The balloting was done, and resulted as follows:



W. B. Moore, J. W. Bowen, I. E. Pyles, Aaron Coppin, and Louis Werner. They were declared elected in the order named.

Mr. Stone—I move that Dr. E. F. Phillips and Dr. G. Bohrer be elected honorary members of this Association. Motion seconded.

Pres. Bowen put the motion, which was carried unanimously.

Mr. Diebold—I move to make the reporter, Miss Stewart, an honorary member.

Motion seconded, put and carried.

Dr. Bohrer—I brought a box of yellow sweet clover seed with me; I thought the bee-keepers would like to have a little of it. It blooms a little earlier than the white; If you will sow a tablespoonful of it you will get enough of the seed to get quite a start.

Pres. Bowen—Do you say it blooms the first of the year?

Dr. Bohrer—No, you sow the seed along in February or March, and it will bloom the next year.

#### Bees Carrying Eggs.

Pres. Bowen—Mr. Crim wants to know if bees carry eggs up into the super through the queen-excluder?

Dr. Bohrer—That is a very hard question to answer. The past season I had something occur that I could not account for; I don't see how they ever got the queen-cell or where they got the egg; there was not a queen in the hive, and had not been for some weeks, but there was actually the egg from which the queen was reared—a worker egg; where did that egg come from? I don't know how it got there, unless the bees stole it and carried it to the hive.

Mr. Moore—Was that the only egg in the hive?

Dr. Bohrer—That was the only one.

Pres. Bowen—Did a queen develop from it?

Dr. Bohrer—I didn't allow it to remain until it hatched out; it was undoubtedly a queen; I opened it and there she was; in a few days more it would have come out, so that I sometimes think their efforts are not in vain. I wondered why it was the workers would get to work and lay eggs, because it seems almost an absolute certainty that when they are queenless, nothing left but workers to lay eggs, they perish.

Mr. Crim—Did the workers lay the egg that produced the queen?

Dr. Bohrer—That is the question—I don't know. I don't see how they could do that unless they were fertilized. I wrote to Prof. Cook concerning that matter and he wrote me an interesting letter; he says he has always found the spermatheca in a dwarfed condition, and never charged with the spermatozoa as we find them in the fully developed queen. He goes deeply into the subject; deeper into the matter of entomology than any other book we have on the subject, because he is an entomologist and can do that. I was acquainted with him a very great many years ago, and discussed with him what is known as the drone question. I noticed that some of the queen-breeders today—Mr. Doolittle says that fertilization of the queen affects the drone progeny. I maintain that there is no possibility of it. I expressed my views of it to Prof. Clark, and he wrote me in a letter that he had not only tested the matter, but said he had proved my position was correct, that the fertilization of the queen has nothing whatever to do on this green earth with the drone progeny.

I wanted to know, also, if his experience taught him that the drone reared from a fertile worker could fertilize queens; he said his impression was the like had occurred. So if a queen cell is put into a hive of that kind it is very certain that they are going to have a fully developed queen. I don't think the fertile workers in a colony are to be dreaded as much as some claim they are. To me this is a very interesting subject.

I would like to say to the bee-keepers here, I don't know whether I will ever be with you or not again. I would not have come this time if it had not been that I agreed to. I want to thank you one and all for the kind treatment I have received at your hands, and have always received—in fact, you did some things I never asked for, and I accepted this evidence of your kindness and respect reluctantly, and I am pleased to note the fact that there is harmony prevalent here that I do not witness everywhere. Every bee-keeper who comes here seems to be in solid earnest about it.

I believe you are on the right road now to success in securing an effectual

Foul Brood Law, and no man will be more pleased than I will be to see you get it, because you are centrally located here; you have more bees than almost any other State in the Union, and the foul brood getting into your colonies is bound to hurt you if you do not have it stamped out.

Pres. Bowen—I am glad this question has come up again, because it gives me a chance to relate an experience I had some years ago. I found a hive that was queenless, and there was not the sign of any brood in the hive except two unhatched drones, and a queen-cell that was very near ripe. I cut that queen-cell out, and didn't let it develop to see what would become of it, unfortunately. I spoke to Dr. Miller about it and he said as a last resort sometimes bees will try to produce a queen from a drone-egg which came from a laying worker; that is the only way he could account for those two drones and that queen-cell being present. Sometimes as a last resort the bees will try to produce a queen from a drone-egg which came from a laying worker.

In fact, all the cells were nearly ripe; after I had destroyed them I was sorry I didn't watch the result. Dr. Miller says this sometimes happens.

A member—Speaking about one of those hives being queenless, I got hold of a hive of that kind myself that evidently had been queenless; there was no sign of egg-larva or brood in the hive—cells practically all full of honey, and I concluded without examining carefully that it was queenless, and I sent for a queen to introduce.

I went through the hive in due time to see what the result was of introducing a queen, and found no queen: I took a more precautionary measure towards introducing another queen, and had the same result; but when looking after the second one I found where there were eggs and young larvae, Thinking my new queen was doing the work in the hive, I ran across the old queen, without any wings on; I evidently had overlooked it. She had

been dormant and not working. I was sure the hive was queenless, but found the old queen there and the new queen gone again.

Dr. Bohrer—Did you introduce a queen-cell, and did they accept it?

The member—No, I tried to introduce the queen, thinking it was absolutely queenless.

### Wintering Bees in a Cellar.

"How long can bees be kept with safety in a good, dry cellar with the temperature at from 45 to 50 degrees, without a cleansing flight, while wintering on combs of sealed honey?"

Dr. Bohrer—I have kept them from the last of November until the first of March, if not longer.

Mr. Kildow—They will go very safely in this part of the country along until in May, other conditions being favorable.

Mr. Moore—The longest time I kept them was from the 16th of November up to the 28th of March.

Mr. Klidow—I take them out from the middle of March until along in April.

Mr. Kluck—I have kept them until the last of April, from November.

Mr. Coppin—I usually keep mine in the cellar about four months.

Dr. Bohrer—These cellars I suppose are all dry; mine is dry and dusty.

Mr. Moore—Some of the members want to get through and catch the 11:50 train, and the photographer will be done by 11 o'clock. I think we had better hurry through with what little business we have left, and adjourn.

Pres. Bowen—What is the pleasure of the Convention, is there anything else to bring up? If there is nothing further, a motion to adjourn sine die will be in order.

Mr. Moore—I move that we adjourn sine die.

Pres. Bowen put the motion, which, on a vote having been taken, was declared carried, and the meeting adjourned sine die, at 11 a. m., to meet at the call of the Executive Committee in 1911.



### MEMBERS PRESENT

- |                      |                       |                      |
|----------------------|-----------------------|----------------------|
| 1—Miss H. C. Holmes. | 13—W. B. Moore.       | 19—S. T. Crim.       |
| 2—A. L. Kildow.      | 14—G. M. Withrow.     | 20—J. T. McCullough. |
| 3—Chas. Becker.      | 15—S. F. Gross.       | 21—J. Selbold.       |
| 4—J. W. Bowen.       | 16—Geo. W. York.      | 22—J. Sauer.         |
| 5—Jas. A. Stone.     | 17—A. J. Diebold.     | 23—L. T. Menkhausen. |
| 6—A. Copplin.        | 18—I. E. Pyles.       | 24—W. W. Bishop.     |
|                      | 7—Dr. G. Bohrer.      |                      |
|                      | 8—Dr. E. F. Phillips. |                      |
|                      | 9—Miss L. M. Stewart. |                      |
|                      | 10—Louis Werner.      |                      |
|                      | 11—Chas. Hastings.    |                      |
|                      | 12—W. H. Hyde.        |                      |

**PROCEEDINGS**  
OF THE  
**ANNUAL CONVENTION**  
OF THE  
**Chicago-Northwestern Bee-Keepers' Association**  
HELD AT  
Chicago, Illinois, November 30 and December 1, 1910.

The opening session was held Wednesday, November 30, 1910, at the Saratoga Hotel, at 10:30 a. m., President George W. York, of Chicago, occupying the chair.

Pres. York called the meeting to order, then the following invocation was offered by Rev. R. Scott Hyde, of the Ravenswood (Chicago) Methodist Episcopal church:

"O, God, the God of our fathers, in whom they trusted and were not confounded. We look to Thee for Thy blessing; Thou art our Father; we are Thy children; may we appreciate, dear Father, the fact that if we are in the business that we ought to be, we are in league with Thee toward the accomplishment of the higher ends of life and of being. We are workers together with God for the good and the welfare of humanity and the world. We pray Thy blessing upon this Convention assembled; upon all the interests that are to be considered; upon each individual member; bless the homes which they represent, and during their absence from their homes may the protecting care of God be manifest. Hear us for all Thy blessings. Hear us for Thy blessing upon all the interests that lie near our hearts as men and women, and as a Convention. Wilt Thou manifest Thyself here today? and may we all recognize the fact, O, God, that we are Thine own, and that we are at our

best; that we can do our best when God is consciously present with us.

Hear us for Thy blessing again, we pray Thee, upon this Convention; pardon our sins, and in heaven save us, for Christ's sake, Amen.

Pres. York—We are at the opening of this session without a Secretary. The Secretary, Mr. Louis C. Dadant, is not able to be here. What shall we do for a Secretary?

On motion, Mr. Maurice G. Dadant, who was present, was elected as secretary during the Convention.

Pres. York—There is a matter I think we should take up first, that was brought forward at the last meeting, touching the question of dues. I will ask the Secretary to read that part of the minutes of the last meeting.

Acting Secretary Dadant then read said part of the minutes, as follows:

"It is order that the Secretary notify all members 30 days before the next annual meeting, that it is proposed to change the dues of this Association from \$1.00 to \$1.50 per year."

Pres. York—I believe notice of this was sent out 30 days before this meeting, according to the requirements of the Constitution. The reason for this was that we send 50 cents per member to the National, making each member here a member of the National. The dues to the Illinois State Association have been raised from 25 cents

make that change in the Constitution.

Mr. Taylor—I move that to that motion this be added: "Except those who have already paid their membership in the National; those that have to pay \$1.00."

Pres. York—Does the mover of the motion accept the addition? He does. This will be made a part of the motion: "Except those who have already paid their membership in the National—they should pay but \$1.00." The motion to read as given, with this addition: "Dues to be \$1.50, excepting to those who are already members of the National, and such will pay \$1.00 a year."

Mr. Dadant—When you join the National Association, does not this Association have to join in a body?

Pres. York—If they are members already, they could not join twice.

Mr. Hoffman—As I understand it, each and every Association—all of its members—have to go in as a body, no matter where they belong; that is the way we do it in Wisconsin; if we don't put all the names in you are not entitled to become a member for 50 cents; if you are going to cut out these few—won't that make a break?

Mr. York—I think not, if you have already joined.

A Member—I believe that half of the members gathered here belong to some State Association, and this Chicago-Northwestern is only an auxiliary; that is what I think. Most of the members belong to a State Association and they join the National with the State Association as a body; we could find that out.

Pres. York—How many now present are members of the National, and have their dues paid in advance—raise your hands. About one-third, I think.

Dr. Miller—Would that not take them all in if they joined this society?

Mr. Smith—I don't know how I got into this Association, by joining the National, or whether I got into the National by joining this. I gave our worthy President the money—just how he manipulated it I am not informed. Do we allow other Associations to come in in a body by paying certain money?

Pres. York—This Association joins the National in a body.

Dr. Miller—I think that would be carrying out the spirit of the matter. I

don't believe the National would make any objection to that. I think it is really a desirable thing for a man, when it is convenient for him, to belong to more than one State Association; if he does so it seems to me it is a desirable thing to make him an exception; I don't believe the National would object to that.

Pres. York then put the motion, which was carried unanimously.

Pres. York—I think, perhaps, the next matter we would better settle is about joining the Illinois State Association in a body. I will entertain a motion on that, so that this matter can all be settled at one time. We must join in a body if we expect our report to be published. By joining the Illinois State as an affiliating association, they will pay for our short-hand report and publish it, and we will all get a copy.

Mr. Macklin—The same question arises there. What about the Wisconsin members? If they pay us \$1.00, 50 cents of that will go to the State anyway.

Dr. Miller—Can you tell us, Mr. President, what we get for that? Can you give us some idea what that report would cost us?

Pres. York—Our report last year cost between \$80.00 and \$90.00; it was over 200 pages of typewritten manuscript, and we paid State Association about \$20.00 as dues when affiliating.

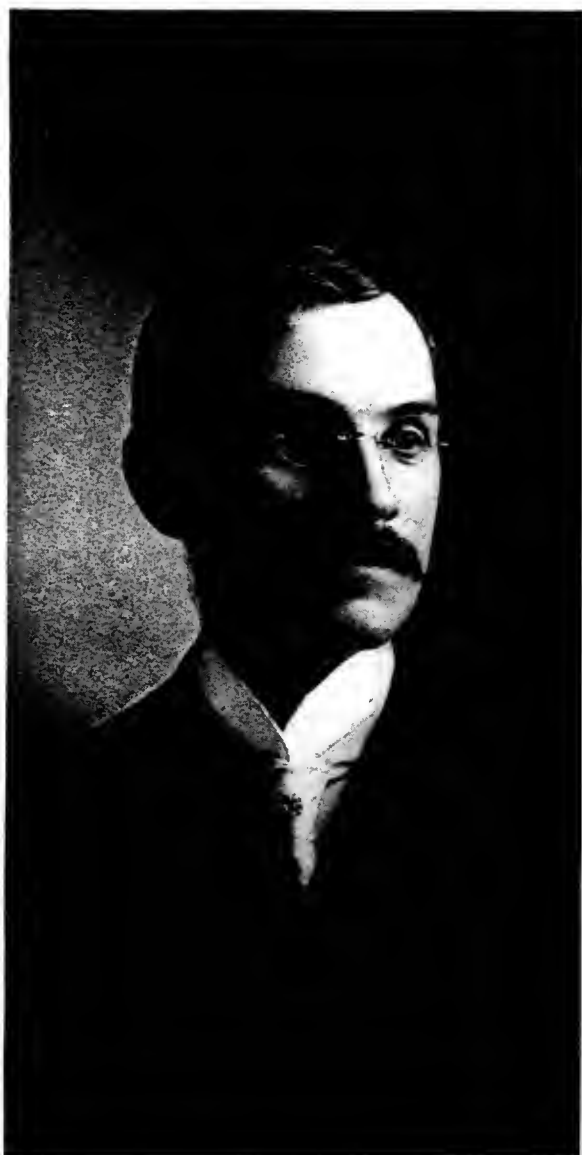
Mr. Macklin—I move we join the State Association in a body.

Motion seconded, and then put, which was carried unanimously.

Pres. York—Now the report of the last meeting, will you have it read—the Secretary's report? It may refresh our memory somewhat if the Secretary would read this report.

On motion the reading of the minutes of the last meeting was dispensed with.

Pres. York—I would like to ask how many here that were requested to furnish papers have them. I think there were about a dozen that were written to, and nearly all responded, consenting to write the papers, but I believe scarcely any of them are here at the opening of this session. I will appoint Mr. Macklin to distribute the question blanks. For a number of years this society had no program—everything was given up to the discussion of ques-



GEORGE W. YORK,  
President Chicago Northwestern Bee-Keepers'  
Association.

to 50 cents for the associations that wish to affiliate. By affiliating with the Illinois Association we have our report published, otherwise it would not be taken or published, as the Illinois State Association pays for taking the shorthand report. Thus I have explained the reason for the change of dues. Now what will you do with this matter?

Mr. Macklin—Mr. President, I move that the dues be increased to \$1.50, according to the resolution adopted at the last meeting.

Motion seconded.

Pres. York—It has been moved and seconded that in accordance with the

resolution passed at the last meeting the dues of this Association be made from now on, \$1.50 a year instead of \$1.00. Are there any remarks on this motion?

A member—I would like to ask a question. I paid my National dues in Wisconsin. I would like to be a member of the Illinois and the Chicago-Northwestern; how shall I work that?

A member—You get two or three more years, if you do.

Pres. York—I think it would be proper for the Secretary to find out all those who are already members of the National, and that it would not be necessary to send 50 cents to the National again for such.

Mr. Huffman—I believe I can answer that question. I am a member of the Wisconsin State, also of this Association, and think it is not a bad thing to pay a little in the future. I think we had better pay \$1.50, for we get three or four years; we will be all the better off. If you don't live that year, the Association is ahead that much.

Pres. York—There are some little things to adjust to be exactly alike to



LOUIS C. DADANT, Secretary,  
Chicago Northwestern Bee-Keepers'  
Association.

all, but we will have to do what is best for the larger number, I suppose. The motion is to adopt a change in our Constitution, making the dues \$1.50 a year instead of \$1.00, in accordance with the resolution passed last year, and notice sent out; the motion is to



tions. Mr. Macklin will now distribute the blanks and any questions you wish to ask, write them on the slips, and we will take them up in a few minutes. We will begin the program in that way, and then, as we find that those having papers have come in, we will have the papers read and discussed. It might be well now to have an intermission of about 15 minutes, after which we will then begin to take up the questions. You can visit and also see the Secretary about the dues. You will please state if you are already a member of the National; those that are, will pay \$1.00; the others, \$1.50.

After the intermission, Pres. York called to order.

Pres. York—I hope those who have not yet become members will see the Secretary as soon as we adjourn for lunch. Mr. C. A. Hatch is here with his paper, so I think we will begin with that, and discussion will follow on this paper, after which we will have some of the questions.

#### CO-OPERATION AMONG BEE-KEEPERS.

Mr. President and Fellow Bee-Keepers: I feel as though I was in a strange hive, almost. I don't know that I have met with this Association before, and you are nearly all strangers to me, so I shall feel very awkward and act a little more awkward than I feel.

(Dr. Miller—You will get over it before you are here very long!)

I take the liberty of doing something like the ministers do—I have a text to go by; I made out this chart, copying it from Mr. Crane, of Vermont, as it was published in the Bee-Keepers' Review, and then re-published in the American Bee Journal.

(Exhibiting chart and hanging same on wall.)

This is a table of honey expenses to consumers, made out, as I have stated, by Mr. J. E. Crane:

#### Price of a 1-lb. Bottle of Honey.

The first cost of honey to the producer .....	8c
Freight on same.....	1¾c
Bottle .....	4¼c
Selling .....	½c
Labels, etc. ....	½c
Jobber's profit .....	2c
Retailer's profit .....	5c
Leakage—loss by breakage.....	2c
Cost to consumer.....	24c

Two-thirds of what is paid for a pound of honey doesn't go to the consumer, but goes simply for packing and getting it to him; something is essentially wrong somewhere, when it costs twice as much to get a pound of honey where the consumer can use it as it does to produce it; and then when you look at the producer's side, it seems strange that we get only one-third of the amount the consumer pays.

As consumers, we should be wide awake and try to find out what the reason is. There is something that calls for action on our part—something that needs to be rectified—when we only get one-third of what the consumer pays for our product.

Where is the trouble?

Now, I say that the trouble lies between the consumer and the producer. The lack of co-operation between them, and the lack of co-operation by the producers as a body, in not making the distances shorter and the expenses less between the consumer and the producer.

We might say that the middleman is to blame—that he is making too much money.

I don't think he is; I have been a middleman somewhat myself, and I find that to handle honey out for less than 5 cents a pound you can't very well do it, in small quantities, and make anything at it. You would have to handle a great deal of honey to make a decent living, if that were your only source of income, at 5 cents a pound.

I think the great trouble is between the two points. We don't make our wants known through each other. I am inclined to think both the consumer and the producer are at fault, by not trying to let each other know of their wants, one to sell and the other to buy. How are we to know this? Our daily papers are full of wants and offers—why is not honey a good thing to offer?

If the consumer is so short-sighted that he insists on buying only a pound at a time, fix your goods to meet the demand. But from several years' experience, a small package is not needed, not smaller than 10 pounds, anyway. I have a trade that takes about 20,000 pounds annually, and 200 pounds would cover all my sales in less than 60-pound packages.

Advertise, and advertise right, is the plan. Plan your campaign carefully, and cover your territory in such a way that the greatest number possible know what you have to sell, and then be sure to deliver the goods as advertised. If a customer finds fault, tell him to send the honey right back, and be sure to send him his money back with no grumbling, and when you get the honey, if you have sent him something wrong, send him an equal amount of real goods with your apology, and if he is pleased he can pay for it, if not it is a present. I never failed to get my pay and get a customer, too, that is worth all the honey cost as an advertisement.

Customers are not disposed to be kickers unless there is cause for kicking. Don't quarrel with them, but assume they are right, and it will be better for trade even if you do feel a little out of humor.

But where does co-operation come in? All I have said applies to associations as individuals. Societies can unite in the expense of advertising, and do what an individual could not.

A tax of \$1.00 per member is a small tax, but if the society had 500 members, that would be quite a fund, and \$500.00 would be a heavy tax on the individual.

This is no experiment. Two States, Colorado and Michigan, are doing it, and reaping the reward—why cannot others do it?

How to do it is for you to determine.

The Colorado plan is to charge up to each producer his pro rata of expenses according to the amount of honey sold through the Association.

Michigan has another plan by which any prospective buyer has placed in his hands a list of members with the amount and kind of honey produced, with advice to buy of the nearest one.

California has a successful Association, and Arizona has one also. These are both stock companies, and get funds by membership dues.

California charges 5 per cent on sales to cover expenses.

Arizona lays a tax on all cans bought through the Association.

I have been a member of both, and, in fact, of all three of the last-named Associations, and all work well, but

I like best the Colorado plan of charging actual expense to members.

Very much can be done through co-operation. Co-operation means mutual help—the greatest good to the greatest number. It calls for patriotism, public spirit, and, in a measure, self-denial.

There is among some a desire for co-operation that is much like the Indian and white man who went hunting together; you have all heard the story, no doubt, a turkey and crow being the result of the hunt. Trouble came over the division of the spoils; the white man said to the Indian: "I'll take the turkey and you may take the crow; or, you may take the crow and I'll take the turkey." This confused the Indian for some time, but finally he says: "Indian no get turkey."

Too many are like the white man, and can see the turkey only, or, in other words, they can see no advantage in co-operation unless it be to squeeze a higher price from the consumer by controlling the market.

If you have an idea that co-operation is a combination so that you can boost prices up, you would better keep out of it. What better would that be than any other trust? If we wanted to boost prices and get a cinch on the trade, we would be no better than the Standard Oil people, or any other big trust, and I have no patience with that kind of thing at all.

Have we no higher conception of co-operation than that? What are our high ideals of brotherly fellowship, and equal chance for everybody, we so often boast of?

This spirit, if carried out to its legitimate ending, would suppress all small bee-keepers and throw the whole bee-business into a few Morgans and Carnegies among us.

Co-operation can help us in three ways—in buying our supplies, selling our products, and defending our interests from enemies without and within.

This last is so well done by the "National" that we can ignore it for the present. The selling point seems to be the more important, therefore, let us confine our thoughts to this one point.

If we can co-operate in advertising and let the consumer know what we have to sell, and what we will ask for it, instead of having to pay 4 cents for a bottle to get it to him, teach him to buy it in large packages.

Now, all this cry for small packages I think is uncalled for, and the call for glass is uncalled for. The idea that the consumer has to see the thing before his eyes, is a foolish one. The only thing we can do as bee-keepers is to let our wares be known, and that we have a good thing; when they are convinced it is a good thing, then we will have no trouble in selling our product.

My price is 10 cents a pound, and I could have sold a great deal more than I had, right at my door, cash in hand before it leaves the depot.

There is no reason why we all cannot do this. I haven't a cinch on the plan. You have to advertise and let people know what you have, and they are willing to take it if you have what they want.

There is greater harm done by selling poor honey than by anything else. We would better ship it in to the biscuit makers at what they want to pay, if we haven't got the first-class article to put on the market. We have to put nothing but the best on the market.

Suppose we tax each man that has honey a cent a pound for all that he sells through the organization; it would make quite a revenue, and he would get 2 cents a pound more by doing it. You will not be the loser, and we want to let the consumer know, by co-operation, that we have something to sell that is a worthy product—a wholesome, honest, straight-good thing in every way; let him know that it is no manufactured thing, that it is a sweet that is wholesome. Why, almost everybody would take some. Children all like honey, and when you once get the public convinced that honey is the legitimate sweet for children to eat, why, your demand would be unlimited.

We are not producing up to the demand now, and let us keep the demand above the production.

We can do it very easily by publishing in some of our city papers. It would not take such a great amount of money. Suppose you wanted to exploit Chicago. You would advertise it; you would talk it up in the daily papers.

Take two or three of the daily papers and put in an advertisement for your Association here; say that by addressing the Secretary you will have a list of producers who will tell you what

they have to sell, and what they ask. A postal card will bring the business to you.

Can you have a better combination than that?

If you have 40,000 pounds of honey and want to sell it, and determine what point is good for honey sales, and then see that everybody in that territory knows that you have that honey to sell, you will dispose of your honey without any trouble. That is the way I do.

We can co-operate as a society and do the same thing Michigan has done, and that Colorado is doing, and California and Arizona, as I have before suggested, and surely if they have done this, why can't we?

I know there is this objection to any kind of co-operative societies in bee-keeping or anything else—a man that is outside of the society will sometimes get just as much benefit as those that are inside. That doesn't make any difference. You know the parable of the men working in the vineyard. Those that didn't get more than their penny began to kick. They got all they were worth. As long as we get all we are after, let those fellows outside have a little; be public spirited enough for that, and they ought not to be so hoggish but that they would come in.

I have had men stand back and wait until the Association had got all they could contract for, and then they would send me a telegram and get my price; that is what I call hoggish. We want to look out for that. I don't think there is one here who would do that, because the fact that you are here proves that you would not.

In California they tax their membership, I think it is 5 per cent. It is some 12 or 14 years ago since I was there. It may be only 2 per cent. They have a central warehouse where all the honey is sent, and then it is inspected. This tax of a certain per cent covers all that, and the expense of advertising, salesman, and the secretary to keep all the records.

In Arizona they don't inspect the honey. They raise their money by a tax—I think it is 5 cents on every case of cans that is bought through the Association; that gives them a greater fund than they need, and their honey is so uniform they don't inspect it at

all. It is not what we would sell as table honey any way, it goes mostly to the bakers, and they don't inspect it.

Here in this country I presume we would have to inspect the honey; that adds to the cost; we would have to have a central warehouse; that adds to the cost.

In Colorado they make no assessment at all; the thing is all closed out. You can get an advance on your honey, if you want to, of the Colorado Association, and when the deal is all finished, then they charge up actual expenses, nothing more; they pay their Secretary and Manager, I think, \$75.00 a month for actual time put in—I don't remember exactly. That worked the most satisfactorily of any one of these Associations that I have belonged to, and cost a good deal less. They have very efficient officers there, and I don't think they could find a better man in the United States than Frank Rauchfuss, for the post he occupies; such men are not to be found every day, so that Colorado is very fortunate in finding that kind of a man.

What this Association needs is to get on to some of these lines.

I want to turn this chart over, and let you see the "Revised Edition." Change is the order of the day. We don't like to be living in old styles always. We have to imagine we are making progress whether we are or not.

(Turning the chart over). This is the way I would have it stand.

So you see I raise the price to the producer—Say 2 cents, anyway. Now I would tax 10 cents a pound cash with the order. I never have lost anything since I commenced this way of selling my honey.

I have sent some without the money for it, but I have always gotten my pay somehow or other; I have never lost one cent.

As to the freight charges—you can send it away to the corners of Dakota for 75 cents a hundred pounds, so I concluded  $\frac{3}{4}$  of a cent would be about the right thing.

Then the honey would cost the consumer  $10\frac{3}{4}$  cents—13 cents rather.

The consumer would save, I mean, over the other way, at twenty-four cents,  $10\frac{3}{4}$  cents; he would save  $13\frac{3}{4}$  cents.

The producer would make a profit over the other way of 2 cents a pound; then you could put in 2 cents for advertising, and that added to this would make it 12 cents, and you could let the consumer have it at 12 cents; then you would save the consumer just half of what he was paying before, and the producers would make 2 cents and the consumer would save 12 cents.

If there is anything that is not clear about that I am here to explain it.

I extracted a little from our President's Address before the National Convention at Albany; I thought he put it better than I could say it, so I just simply copied it. It reads:

"The time is rapidly passing away when a single producer in any line can make a success all by himself. These are 'get together' times, and bee-keepers have lost much during the past decade in not being properly organized so as to protect their own interests, and realize a proper return for their efforts in the production of honey. Again, I say, leave the methods of production and the details in that line to the bee-keepers of the country, but the larger and more difficult work—the marketing of the product—let that be controlled by a National Organization made up of the branch organizations in the various States and Territories."

Mr. Rauchfuss, of Colorado, wrote an article on the co-operation in selling honey, and one of the things that he says that is worth thinking about—after saying that we should always have honey on hand when anybody demanded it, and in a shape to sell, he says:

"One of the things we bee-keepers would run up against would be the failure to supply the kind and grade of honey desired when the jobber or wholesaler wanted it; then some corn syrup would be substituted, and some valuable honey trade would vanish. We shall have to be on deck with the goods the year around."

That would be another problem

I find some people are not willing to take one kind of honey that they have not used, in place of the kind they have been accustomed to, but I do find this: a first-class honey of any variety—that is, any first-class variety, say such as clover, basswood or alfalfa, will generally suit a cus-

tomers, but anything that is a little off-grade will not suit them.

I very nearly spoiled my trade two years ago. I was short of honey and sent to a jobber in the city of Milwaukee and got what he called "orange blossom honey." I think the only reason why they could have called it orange-blossom honey was because there was no orange blossom about it.

This idea of orange-blossom honey I think is very far-fetched.

I have talked to some of the most intelligent bee-keepers in California and they say they never saw orange-blossom honey, yet there are tons and tons sold for orange-blossom honey.

This honey was alfalfa, as near as I could figure it out, and something else mixed with it, probably some clover; it gave it a little off flavor, so came nearly spoiling some of my customers. They didn't like that kind of honey. I explained it to them; I didn't tell them it was poor honey, but I told them it was as good honey as I could get, and where they objected to that honey, I said, "Send it back and I will send you some next year." I saved one customer, one good customer, in that way. He said he never would think of buying honey of me again, but his order came right along next year just the same.

Pres. York—You have all heard what Mr. Hatch has said on the topic. The question is now before you for discussion. What have you to say?

Dr. Miller—I would like to ask Mr. Hatch a question for information. As you have presented it, the getting together of these bee-keepers of the different States has a good look. Now do you think it is better for them to get together as States, or for the bee-keepers of the whole country to try to get together? My mind is a blank on that.

Mr. Hatch—My idea would correspond with our President's in his address before the National. We ought to get together as a National Association, and work on the plan that the Michigan Association is working on. They advertise their honey, I don't know how extensively, but when an advertisement is answered they send a little pamphlet to the one who asks for honey, with the names of all the bee-keepers that belong to that Asso-

ciation, telling them just what they have to sell, and the prices they ask for it. In fact the Association sets the price. They have a uniform price. That would be one grand thing you could get by co-operation. When this customer gets that in the little pamphlet it instructs him to deal with the nearest man who has what he wants. Don't you see, Doctor, how we could do that as a National Association? We could operate exactly along that line. I say "we" because I was and I think Dr. Miller and Mr. York were a few years ago in the Honey Producers' League. That was to exploit and advertise honey and I never knew what became of it; it kind of evaporated into thin air; the last I knew of it the fund was turned over to the National. Could you answer what became of it?

Dr. Miller—It was turned over to a special committee. There was some advertising done in a general way by it; some literature put into the papers as a matter of general publicity, whether enough to pay for the money put in I don't know, but I think it did some good.

Dr. Miller—On the way in here I tore a bit out of today's Chicago Record-Herald. The idea is this: Laundrymen all over the country got it into their heads that people could save money by having their washing done at the laundries instead of having it done in the kitchen; that they could save in the matter of comfort and expense. Now there is a general tendency toward getting together in all lines of business.

Here are these laundrymen; they think they can get up a fund and put enough literature into the papers to get the people to do their washing through the laundries, and so it is in other lines of business. Now we are attacking a big subject here. The question of getting together is a big one. We have stood every fellow for himself, as a rule, and we are standing that way today. As the thing now stands with us, Mr. Hatch and I are rivals instead of brothers. He is doing all he can (I am talking on general principles); he is doing all he can to get the trade away from me and from everybody else, and he stands alone.

Mr. Hatch—I have succeeded in a

measure by having one of my best customers live in Illinois not far from Dr. Miller.

Dr. Miller—That is the way the thing runs. I am bitterly opposed to Mr. Hatch! Mr. Hatch is a nice man—I have known about him for years, and we ought not to be enemies; we ought to be good friends.

By the way—if you will pardon me for digressing just a minute—what started the Bee-Keepers' Union in the first place, was, Mr. Hatch's father-in-law got into trouble with another man who had sheep; the bees came and ate up the thing that was in the clover blossom that made it valuable to the sheep. Some of you know about that, and some don't. That is what really started the Bee-Keepers' Union, afterward uniting with the National Bee-Keepers' Association. A number of us united; I put in \$1.00 with no other idea than that it was to help in a law-suit of a brother bee-keeper. There was co-operation there. I don't know enough to know what is the best way to do this and to get together, and to get the advantages of co-operation, but I do know this, that if everybody is doing it and getting together, there ought to be some way that you and I can get together, and in some way have the advantages that would come from such co-operation.

If the laundrymen can get together a public fund to be spent all over the country for the general benefit of laundrymen, the bee-keepers of the country ought to be able to do that same thing.

There is one thing about it, though—I don't know but what we will have to face. In all that has been done heretofore (and I believe that the National has done a great deal of good—everything that has been done has been for the public at large), you and I as members of the National have paid the expenses for the benefit that has been to all. Now I like the idea of being large hearted, and not trying to do for yourself alone, but, as a cold business proposition, I believe we have to look out for that and fix the matter in some way that the money we pay in for this publicity will help us more than it will help the other fellow that has nothing to do with us. I know that is selfish; I don't like the feeling, but if we are going to make a success I feel we have to do that and have the benefits to be

received in some way confined to those who are taking part in it.

Mr. Ahlers—If I followed this advice given just now I would have to reduce the price of my honey, so I would rather not say anything. But I think the whole thing could be done by getting together with the Association, the honey being sold as by the Association, by the members, and make that price the minimum price, and if any member can get a higher price let the Association give its approval. Have the members joining the Association produce the best honey; blow your own horns; convince the people that they cannot buy any better honey, and the approval of the Association of the honey I believe would sell it.

Mr. Hatch—I think he ought to tell that secret—how to get that extra price.

Mr. York—Mr. Hatch thinks you would better tell us the secret—how you get that better price—how you do it; I think it is probably through advertising!

Mr. Member—No, I don't know; of course I sell direct to the consumer, and all printed matter that I use reads "Producer of choice honey sold directly to the consumer," and the consumers know that I produce choice honey, because I get their orders pretty regularly; I simply ask that price. There are lots of people who are willing to pay a good price for a good article, and if you ask a lower price they will not pay you a better one; you cannot then get a higher price should you want to; if you want to get a good price you have to ask it. I am charging this year  $1\frac{1}{2}$  c a pound higher than last year; I have shipped forty orders more by express than I did last year, up to date. I have shipped quite a lot to Chicago; I ship it all over the country by freight.

A member—When you add  $1\frac{1}{2}$  cents, what price would this make?

Mr. Ahlers—Lowest price is  $11\frac{1}{2}$  cents a pound if you take 60 pounds, and 12 cents a pound for a 10-pound lard pail of honey; I use the Dadant pail. Shipped by express, 13 pounds, 12 cents; or  $11\frac{1}{2}$  cents for 25 pounds f. o. b. cars, and less than 60 pounds, freight,  $\frac{1}{4}$  cent higher. It should have been  $\frac{1}{2}$  cent higher.

A member—I would like to know how you find your customers—I don't want to sell to any of them.



Mr. Ahlers—That is the point Mr. York has been trying to bring out.

I advertise in German papers. The Germans use more honey than Americans. It is just as natural for them to use honey as butter. I have their trade; they are very conservative; if they buy a good article from some one they don't want to change.

I started in Milwaukee, and I use pails to put the honey in. It is a pretty hard thing for them, after they begin to use those pails, to break away from it; they are handy for the children to carry water in; they are handy for the boys to use to go fishing—to get minnows; they have a flaring top. When any one comes around with a different pail they become suspicious.

People cannot "run in" on my trade very easily in Milwaukee, on account of this flaring top pail; they can't ship it from a distance; if they do it is so costly they can't make anything.

I think we have an advantage in selling good honey; I sell as good honey as I know how, and supply them regularly.

I don't produce all the honey I sell; I buy a lot of it.

I sell direct to the consumers, and also a few stores. The stores buy for their own consumption; what they sell they buy somewhere else. The proprietors of the stores buy honey of me for their own use.

Dr. Miller—Probably Mr. Ahlers sells honey in Dutch, Mr. Hatch.

Mr. Hatch—Mr. Ahlers is a peddler.

Mr. Ahlers—I object; I have not delivered a pound of honey in years.

Mr. Hatch—But you have to have some one to do it for you.

Mr. Ahlers—Yes, I give him the tickets; I don't run in houses to solicit trade; we call on our customers; other people come up to the wagon and call for honey.

Mr. Hatch—That is what I used to call peddling on the fruit farm.

Mr. Ahlers—I deliver in Milwaukee by wagon.

Mr. York—As I understand Mr. Ahlers ships all over the country two-thirds of it.

Mr. Ahlers—Yes, two-thirds of it.

Mr. Ahlers—I don't advertise much now.

I advertise in a Sunday German

paper, \$1.40 a month; I was paying \$4 a month; they were going to raise that ad to \$12 because I used a heavy head line; I told them to cancel my order, and I inserted a little order at \$1.20, and have not advertised any more except when I want to buy honey; I sometimes put a little add in the bee papers.

Mr. Wilcox—I rather like this subject, and the manner in which Mr. Hatch has presented it, although I would not think it quite practical just as it is presented there. In the first place, we could not realize the prices quite, mentioned there. There are serious difficulties in the way; very serious.

The difficulty seems to be, there are many grades of honey as every bee-keeper knows. Different flowers produce a different kind of honey, and even the same flowers—clover, for instance—does not always produce the same grade of honey; one week, honey extracted is entirely different from that extracted the week before.

In co-operation, the design is to sell through an organized body or agent, and there must necessarily be some means of grading that honey and advertising it so the buyer will know by grade about what he is to get.

There is a serious difficulty, if we attempt to ship our honey from place to place, where it is produced through this agent to be graded—there are transportation charges.

If we adopt another plan and state what we have to the agent, and he advertises, from our representations, and we receive orders direct from the consumer and attempt to fill them, the consumer will often be disappointed. They will not be filled with just the grade that was expected; and it is a serious difficulty with me to know how we can put it into practical operation.

There was an organization in Northern Wisconsin to which all the honey was shipped, and they sold it wholesale. The organization has gone out of existence, I believe; the members of it were dissatisfied with the results, and I am not able to devise any plan, and never have been, by which it can be entirely satisfactory. I hope we will be able, among us here, those that have had more experience than I have, to do so.

I have had some help through the Information Bureau of the National Association, telling me who has honey for sale, and what kind, and I suppose I found some customers by letting them know what I had for sale, and at what time, so when they are asked they can refer them to me. By that way we can receive material aid, and it comes very near Mr. Hatch's suggestion of co-operation.

Each man reports his own price to Mr. France, but it would be well if we could have as nearly a uniform price as possible. I can get 10 cents a pound for first quality basswood and clover honey in a small way, sold direct to consumers, but I don't think it is wise.

I have not been able to convince myself I ought to ask more. I have sold all I could produce at 9 cents; I am not sure but what it could have been sold at 10. I wish you would work this out. The errors of this calculation you can see as represented there. There ought not to be so much difference between the cost to the consumer and the producer. This is true, not only of honey but of other things. Take it in potatoes—the consumer pays from 80 cents to \$1.00 a bushel for potatoes; the producer, where I live, sells them for 20 to 22 cents, and they have sold thousands of bushels at 15 cents. Why is it potatoes sell for 15 cents, and retail for \$1.00?

It is not the bee-keeper alone, but it is so with farm products of all kinds, except possibly wheat, but these matters can be improved; the conditions can be made better.

There are too many middle men—transportation charges, and numerous other things that consume the profit.

Mr. Macklin—Mr. Hatch, first gentleman, spoke about the Colorado situation. I have been through the Colorado country, and it is very peculiar because there are only certain districts in Colorado where there is honey. The district is limited. Here we practically produce it throughout the entire State.

I met Mr. Rauchfuss in Denver; the off grades and broken sections he was selling out in glass jars.

They are well organized in Colorado, but the territory is limited. He is not the only man who sells honey in Colorado—there is the Montrose organiza-

tion. They all co-operate and sell for practically the same price.

I have had no trouble in selling my best grade of extracted honey for 10 cents, without peddling or advertising. I have a trade I sell to; I sold about 1,000 pounds, possibly. I don't think it is advisable to buy honey to supply customers. When I am out, I am out.

The matter of co-operation is a pretty big thing for this State. If we had almost standard honey, as in irrigated countries, we would have no difficulty, but we have here all kinds or grades.

Mr. Huffman—I would like to ask Mr. Hatch if he gets pay for his package, at 10 cents?

Mr. Hatch—No, that goes in.

Mr. Whitney—I would like to ask Mr. Hatch whether the small bee-keepers throughout the country belong to these co-operative associations to any extent?

Mr. Hatch—In Arizona, Colorado and California, as has been stated, the conditions are quite different from what it would be here; they can very easily concentrate all their honey in Los Angeles and San Diego; and in Colorado at Denver, because most of the bee-keepers are right around those points. And it is true in Arizona, that nearly all of the bee-keepers live right around within 50 or 60 miles of Phoenix, so they can easily concentrate right there; all in those States belong to their Association; it is the first thing a bee-keeper does—join an Association.

Mr. Wilcox—Does that apply to the small bee-keeper?

Mr. Hatch—Yes, it does. In Los Angeles some few bee-keepers sell it to their neighbors.

Mr. Wilcox—In Illinois, and I think it is so in most of the Middle West and East, the small bee-keeper has a better market at home than he would have to join an association, because many of them sell their honey at from 15 to 20 cents for extracted honey, to local people.

Mr. Hatch—The association could not probably help him in any way.

Dr. Miller—I would not like to see that statement go on record without being challenged—that these independent men would not be helped by the Association—by co-operation. If the general prices over the country are

raised, that is going to help you, even though you have an entirely independent market, because some of your customers would catch on to it sometime, that there is a lower price elsewhere, so that the general good will help every one.

Mr. Hatch—I accept the amendment.

Pres. York—Dr. Miller will not be able to stay with us longer than this afternoon, so that we had better use him as much as we can while he is here. He has been asked to speak on the topic of the "Value of Longevity in Bees," and we will hear from him this afternoon. We now are adjourned until 1:30 p. m.

### FIRST DAY—AFTERNOON SESSION

Dr. Miller—I don't know enough about the subject of the longevity of the bees to talk intelligently, but you can get started. I would be glad to learn something on this subject.

#### Value of Longevity in Bees.

I think we don't realize how much might be gained if we could gain just a little in the matter of longevity; if we could have a bee, for instance, that would spend one day more than another in its gathering, that would add how much to the crop? I wonder if some of you can tell me what percent of honey it would add to the crop. How many days does a bee spend in the field—can any of you tell me that?

Mr. Hatch—About 30 days; mine do.

Dr. Miller—Hardly that.

Mr. Anderson—I don't think mine do more than from 10 to 15 days, taking bad weather and everything all together.

Dr. Miller—I will give you a question I think I will get several to answer. What is supposed to be the life of a worker-bee in the busy season?

Mr. Wilcox—45 days.

Mr. Hatch—I would cut that right through in the middle.

Mr. Wilcox—I mean the extreme length, not the average.

Mr. Hatch—I think in the clover season a bee will not live more than two weeks.

Dr. Miller—Now you are taking another point. Just now we are at the whole life of the bee. There is a time while it is a nurse-bee, and then it is a field-bee. Mr. Wilcox gives us 45 days.

Mr. Wilcox—That is the extreme length of the life.

Dr. Miller—The general answer I think to that is 6 weeks. How many days does it spend as a nurse-bee? You all ought to agree on that, and several ought to answer.

Mr. Taylor—I know what the reputation is; it has been 16 days.

Dr. Miller—Take 16 from 42, what will you have left?

Mr. Wilcox—26.

Dr. Miller—26 days, then, is the working length of the life of the bee; I think I would agree with Mr. Hatch.

Mr. Anderson—How old will it be when it commences to nurse?

Dr. Miller—We can't stop for that.

Mr. Hatch—About 2 minutes.

Dr. Miller—If we take 26 days—and I am pretty sure that is all that we ought to allow, if not a good deal more than we ought to—if we take 26, then if we gain one day, we gain 1-26th, or about 4 per cent of the working life of that bee, and of the amount of honey it ought to gather.

So much for a starter.

Now another thing: You know there are some colonies that will gather more than others; two colonies stand side by side; one gathers a great deal more than the other—and the one that gathers the most will not seem to be as strong in bees as the other—why is it? It is because one colony has bees that are longer lived and spend more time in the field.

Mr. Taylor—Why not say the weak colony dies off faster?

Mr. Anderson—Does not the disposition to gather have something to do with it? Are not some of them lazy?

Dr. Miller—Yes, there may be more than one reason. If you can have a bee live longer, you will get a larger proportion of honey.

Now another point I want to make: There are some queens that live longer than others. I think there are strains of queens that will live a great deal longer than others. There are some men that say they want to change their queens once a year, because after the first year the queen is played out, and there are others that will tell you that they don't care to change more than once in three years for a queen will live 2 or 3 years. Now I don't know about it;

I suspect there may be a difference in bees themselves; in some strains the queens will live longer than the queens in other strains.

If that be true, where you have greater longevity in the queen, will you not be likely to have a greater longevity in the workers? I believe you will. Now I think perhaps I have said enough to start you.

Mr. Whitney—If we have a succession of poor seasons, won't the longevity then be increased?

Dr. Miller—Decidedly.

Mr. Whitney—So much depends on the season; I have known colonies of my own to remain all summer without doing a thing, and the queen and the bees were apparently all alive from spring until fall.

Dr. Miller—You will strike another thing—they will all live longer because they are doing less.

Mr. Hatch—Would it not be fair to state that the life of a bee depends upon the amount of work it does?

Dr. Miller—Decidedly, that is true, but independently of that I believe there is a difference in bees under the same circumstances.

Mr. Hatch—Have the ability to do more work?

Dr. Miller—Yes.

Mr. Hatch—I agree with you.

Dr. Miller—As to the practical thing that we are to do. I think that we might gain something in this way: By watching to find out which are our longer-lived queens. As a general proposition I would say this: Breed from your best storing colonies, but on this point I would say, take your longest-lived queens; breed from them; you are going to increase the longevity of the queens and workers. I am on dangerous ground; I am talking about a thing I don't know much about.

Mr. Hatch—The thought has come to me, you know a bee working on clover wears himself out faster than on any other flower.

Dr. Miller—I don't know that; I won't dispute it.

Mr. Hatch—According to my observation it is a fact. That comes from his wearing out his wings. The question arises with me, what would be the effect of his having good strong wings? Doesn't it make a difference in the vitality of the bee?

Dr. Miller—Yes, I think it would.

Mr. Macklin—You said to breed from your best producing queen. I had a colony that stored three supers of clover honey; they didn't store a pound of fall honey while other colonies were working nicely beside them, with the same queen. Would it be advisable to propagate that strain?

Dr. Miller—Yes, if on the whole that colony did better than the rest. I think I can see just a little bit of reason why they didn't do so, but taking your question as a whole, I should say, breed from that one that gave you the most honey, whether it did the first part of the season or not.

Mr. Wilcox—There is one question that sticks in my crop. I didn't know that a bee didn't go to work until it was 16 days old. I supposed the time was about 10 days. I know some writers have it about 15 days, anyway, and really I would like to know the sentiment of those who have some evidence on the subject.

Dr. Miller—I can only give you the tradition of the elders. Sixteen days is the orthodox time, and it is not so easy to establish it now as it was years ago when there were fewer black bees plenty in the country, and few pure Italians; I know that 16 days was the time stated, and it was not disputed; and I think, Mr. Wilcox, that you have no right to say 10 days. I think this, however, that it does make a decided difference as to conditions; a bee, under stress, will go to work much earlier than is the ordinary custom. At one time I had a colony of bees that were started from brood alone; I put sealed brood in the hive and let the young bees hatch from that; it was kept over another colony so as to keep up the heat, and after a while I put it on a stand of its own, and opened the entrance, and those young bees, when they were 5 days old, were carrying in pollen. But that does not say that that is the rule. I think that 16 days is the fair rule.

A member—That may have been caused by necessity.

Dr. Miller—Yes, I think that under other circumstances they might be longer. A bee works at what is most needed; it will work as a nurse-bee when it is 6 months old in the spring,

where under ordinary circumstances it will work as nurse-bee in 16 days.

Mr. Wilcox—I want to call attention to the importance of this, or the reasons for it. Almost every season we know about when the honey harvest will end, if we have been keeping bees in that locality any length of time. We don't want to stimulate queens to lay during the last few days before the honey harvest ends. We want to keep the queens laying up to within one month previous to the close of the honey harvest.

Now, after the bees come in and commence to work, it takes 21 days to hatch (I know that); if I add 16 days more, that makes 37—don't you see I have to have eggs laid more than one month previous to the close of the honey harvest to get anything from them?

Mr. Smith—I would like to make a few remarks in the hope that if any of you see anything very seriously wrong with my trend of thought you will correct me before this convention adjourns. I have spent considerable time on the lines that Dr. Miller has laid down here, and it seems to me that he is entirely right. I have consulted with some of the best breeders of other livestock, and men connected with our educational institutions concerning this matter. Our scientists tell me that the same lines of descent in the bee family will hold that hold all through nature. It is true of the vegetable kingdom and the animal kingdom. I believe with our breeders of horses—all of improved breeds of hogs and cattle and every class of livestock, where it is so much harder to see what we are doing than it is with the bees—they always select the very best—the longest lived. It almost follows as a matter of course that the insect or animal that has the vigor to live for a great many years, perhaps 25 per cent longer than the average, is more vigorous during all that life.

The horse that can make a mile in 2:10 or 2:20 on the track is a much more vigorous yearling; a much more vigorous two-year-old, and usually lives to a greater age.

There is one point that was raised I would like to give you my idea of, that is, with regard to the wing of the bee.

I don't think the wing has anything to do with the bee, but I do believe the bee makes the wing, and I believe a vigorous bee will have a stronger wing than a bee that is not. I believe power comes out of the bee into the wing; it is the food that the bee eats soon after it hatches. The food from that time on goes into its digestive apparatus, and is assimilated and makes other organs strong.

A member—Would not the wing be a point for judging?

Mr. Smith—It would be one of the best points, but I think the wing is produced by the bee. I believe if we can add one, 2 or 5 or 10 days—and I believe we could add 20 days—it would be a great thing.

Look at the short time it has taken to cut the speed of trotting horses from 3 minutes to 2, and there was no special breed to start from. They selected the speedy horses.

We must select the bees that are the best breed; we must give just as much attention to the drones as we do to the queen-bee.

I discovered last year a queen-bee that was selected by President York something like 5 or 6 years ago. This queen had a colony more than twice the strength of any other colony of 115 in the apiary. I would rather pay \$50.00 for that queen than to get the ordinary average queen at 50 cents a dozen for my use.

I have bought queens by the dozen. I have gotten perhaps one out of a dozen that would lay up a surplus; from the other 11 I would not get any surplus. They were a loss to me.

Now it seems to me that we must put in the time and the money necessary into breeding our queens if we are going to improve the strain.

We improve our strains of livestock by paying 2, 3 and 5, and as high as 8 thousand dollars for one animal, when the average is worth \$1,000.00. For the best breeders I don't know but more than \$8,000.00 is paid. We must do the same thing with our bees.

I don't believe any man could pay very much attention to his bees and rear queens at 60 cents a piece.

#### Alexander Foul Brood Treatment.

"Is the Alexander treatment for foul brood reliable?"

Dr. Miller—I don't think it is worth anything for American foul brood. I think it is very reliable for European foul brood.

Pres. York—Will you give the treatment? Some don't know, perhaps, just what the Alexander treatment is.

Dr. Miller—In brief, the Alexander treatment for foul brood is this: Take away the queen from the diseased colony. In the first place, make sure that the colony is strong, and that generally means that you must strengthen it. The treatment is good for nothing unless you have a strong colony. Then take away the queen, and in 20 days' time give a virgin queen or a queen-cell, all pure Italian stock, and that is all there is of the treatment.

Mr. Macklin—Was it very successful with you last year? Did it crop out again this year in those treated colonies?

Dr. Miller—I don't know. I have no way to tell positively. Because European foul brood is all around me, and I can't tell whether they get it fresh, or whether it crops out again. I think it did crop out again in some cases, and I think you will have some crop out with almost any kind of treatment you have. My impression is, if there had not been anything within 1,000 miles of me, I would have had some repetition; but I would vary as to one point from Mr. Anderson. I don't believe it is necessary to have pure Italian stock: I believe black stock would be just as good, if not better. The black stock is better than the yellow stock. I think that, generally, Italians are better than the black, and on that account they are better to cure disease, but with vigorous blacks or vigorous hybrids I believe you could get just as good results as you can with pure Italian stock, but I made the mistake that I told you about last year, of understanding that Mr. Alexander gave, after 20 days, a laying queen. I made the mistake of thinking that he gave them a laying queen, and so I gave one.

I got down to another theory since last year, and I don't want to lose my reputation for veracity, but I may as well tell you what I did, and what I think, and then you can form your own conclusions.

As nearly as I could make out I began to get to this belief, that the disease is generally conveyed by the nurse

bees taking an infected larvae in its first stage.

You know that bees will eat the larvae when a colony is starving, and they will throw out the white skins.

Now I suspect that in the same way when larvae first dies with the disease that the bees will eat that larvae, or at least will eat some of it, and then with that they convey the disease.

Suppose, however, that a larva dies, becomes decomposed, and in a day or two the nurse bees don't find it palatable, and they would not use it—so it is only during a day or two that they would take the diseased larvae.

Now don't understand that I think for a minute the disease cannot be conveyed in any other way; I think it might be conveyed by spores in the honey, but I think that is the principal way; at least that is the working theory.

If that be true, then here is a rather startling conclusion: If you stop a queen laying long enough so that there will be no bad larvae that will be good enough to eat, it will stop the continuance of the disease.

When I got that far (and that was pretty late last summer) I thought I would try it. I had two colonies then (I think that was the only chance I had, with those two) to try it upon. Instead of taking the queen away, I caged the queen in the hive (that stopped the laying) for 6 days, and then started her at the end of 6 days, and the colonies, both of them, were cured.

How long they will stay cured I won't say. I know that is radical, and I would not recommend that treatment.

A member—That would explain why colonies that seem perfectly clean in early spring develop the disease in that period of dearth when sometimes the bees get down to the ragged edge of despair. In the early spring, good colonies that were perfectly clean until cold weather came, and there was no honey, and they were near to starvation, then it showed up in ever so many hives.

Dr. Miller—Here is the point the gentleman makes, and I think it is a good one:

Under ordinary circumstances the bees are particular about what they eat, but when it comes to a matter of starvation, they would not be quite so



particular, and would eat this diseased larvae more plentifully, and at a more advanced stage of decomposition.

Mr. Taylor—He said they had no disease.

A member—Apparently had none; they had the year before. Under the same conditions they were clean in the spring, and seemingly you could not find any disease, until the period of dearth, which seems to strike us here in Illinois for about 3 weeks, and just after the dandelion and before the clover.

Dr. Miller—I would say the disease may enter a colony, and under some circumstances the bees will keep it cleaned down if there is only a little of European foul brood; (I know practically nothing about American foul brood); but about the European, they will often keep it cleaned up—a good, strong colony. I have had more than one colony that had the disease in a few cells, and have simply let them alone, and they cleaned it out themselves; a vigorous colony will do that.

I want to say upon this whole subject that I believe if any of your bees get European foul brood that you will do well to experiment at least on the Alexander plan, or a modification of it, because I have gone so far from it you would hardly call it a modification. You will do well to experiment on it because we know nothing about that.

When I first started dealing with European foul brood, I melted up good combs by the thousand; (there were at least 2,000 of them), and it would have been a great saving to me if I had known enough to experiment in this way; even if I don't make a perfect cure in each case, I could weed the thing out enough so they would keep on and succeed in getting rid of it. It is a question whether for years I will be entirely clear of it, because it is all round me.

Mr. Taylor—This is a very puzzling question; a very puzzling subject. I don't know much about European foul brood; I don't know that I ever saw but one case of it.

Dr. Miller—I would be glad to swap with you, what I know about European foul brood for what you know about American.

A member—I think you know about as much as anybody; I don't know that anybody actually knows about European foul brood.

Mr. Taylor—My friend Hall had a case of European foul brood (near St. Joseph, Mich.), as I was Inspector, he called me over there to see it.

I went there and looked through the hives and gave him my opinion as to what he had better try, and came away.

I was talking with him just now; he says: "I didn't have to do anything with those bees; when they saw you they quit having foul brood."

Mr. Cavanagh—I cannot agree that there is no one that does know much about European foul brood; I think we are learning more about it every year. I have seen the writings of some men who know some thing about it. I am going to add a few opinions gathered from my limited experience and observation, and with that of others put them before this convention for discussion.

The opinions of some have been that the disease does not exist in the honey, but I, myself, differ. I think it does. I think we will all admit that a vigorous colony under proper conditions will not take the disease.

This can be proved in various ways. We can put the diseased brood above a healthy colony, and this healthy colony will not take the disease.

I think we will have to admit there are conditions under which colonies are not susceptible to the diseased germs of European foul brood.

Admitting this, we have an explanation of the conditions the gentleman found who previously spoke; he spoke of his bees being free from disease up until the time that we had some 3 weeks of bad weather in the spring. During these three weeks of bad weather in the spring these bees arrived at that condition when they were susceptible to the germs of European foul brood; that disease was in the honey all the time, but previous to this time that colony, in its vigorous condition, did not take the disease. They were proof against it. And that is the reason that the disease developed during this bad weather. Had the gentleman fed those bees over this 3 weeks' period, he would have had no European foul brood. Allowing his colonies, during that time, to become in that condition, which a colony has to be in to develop European foul brood, they take it from the honey.

I contend that the disease lies in the honey. I have seen it proved, by feeding bad sections.

We know that during a good honey-flow, especially in the fall of the year when the brood-nest is becoming smaller, and the bees have less brood to take care of, that European foul brood will disappear entirely. We know also that those colonies, in the spring of the year, will remain free from the disease.

Keep a good strain of bees, keep the queens of proper age, and keep your colonies in good condition where the germs of European foul brood cannot make any headway, and under those conditions a man may not be afraid of European foul brood.

We must first have proper bees, and the experience of the bee-keeping fraternity has proven beyond doubt that the Golden Italian, the Cyprian and the Carniolans are all good. Some claim that the leather-colored stand equal to some others; I have not found that to be a fact, but my experience is not extensive enough to pass an opinion upon them. My experience is that black brood is a transmitter of European foul brood.

Dr. Miller—What about hybrids?

Mr. Cavanagh—They are not as good as the pure stock with me. A man in a locality where European foul brood exists should re-queen yearly. He should keep proper conditions all through. He should have vigorous queens; he should get young queens, and if he suffers from a dearth of honey at certain times of the year he should fill in that gap by feeding, and I guarantee he will have nothing to fear from foul brood.

I have not had so much faith in the Alexander treatment as I had a year ago. I find that colonies, when they are given a chance, with young Italian queens, and have a honey-flow to build on, will clean them up and stay clean.

This plan cures equally as well as the Alexander treatment; that is rather a dangerous thing to pass out promiscuously, but it is a fact.

If bee-keepers will keep their colonies in proper condition so they won't take foul brood in the early part of the season, they won't have any trouble with it.

Mr. Wilcox—I don't know a thing about foul brood of any kind. I would

like to sum up this discussion: From all that we read about foul brood, and hear about it, I have reached this conclusion: That American foul brood, at least, bears about the same relation to bee-diseases that pulmonary tuberculosis does to the human race. It is questionable whether it is contagious or not. If it exists so commonly that when the conditions are favorable for its development it may be expected, why, it is not really a dangerous thing. It is impossible for bee-keepers to keep their bees at all times in a good, healthy condition, and strong. I do not know, but I would not dispute it in the least, but what it is this black brood that breeds European foul brood; but I doubt whether it is contagious.

I am inclined to sum it up in that way. That this European foul brood, or black brood, as it was formerly called, can be taken only when conditions are favorable. That it is doubtful whether it is contagious or infectious. I doubt if there is very much difference between the two diseases. I believe from all I have heard here today that it is not a serious disease.

Mr. Whitney—I see Mr. Baldrige is present, he knows considerable about this foul brood business. I would like to hear from him on how to cure European foul brood.

Mr. Baldrige—I have had no experience with European foul brood; I don't know it when I see it.

Dr. Miller—He is an American!

Mr. Cavanagh—The point I want to bring up is this: Mr. Wilcox says he doesn't class European foul brood as a dangerous disease. I do. I tell you, where you get European foul brood in your bees, and have it spread to about  $\frac{3}{4}$  of your colonies, you will begin to feel pretty sick, if you are anything like me. It is a mighty dangerous disease.

Mr. Wilcox—I don't say the bees won't take it if they are in a weak condition. I say conditions must be favorable before foul brood develops.

Mr. Cavanagh—As to the transmission of European foul brood, I think it is transmitted in various ways. We don't know exactly how. I am willing to give a little personal experience as to how I have seen it developed, and how rapidly.

I had an apiary of Italians—well, I should think 1-3 were blacks and hy-

brids, probably 2-3 pure Italian stock—very good stock. I shipped into a location where I know positively the colonies were healthy, and inside of six weeks I am satisfied half the yard would show European foul brood, and inside of three months, 70 per cent of the yard had it.

Now, I don't think for a minute that those bees went over and robbed out any diseased larvae from other hives. They robbed the honey from the hives and transmitted that disease to those bees, because it was backward weather, a cold spring, and the bees, some of them, were weak; that is what I think about it.

Mr. Wilcox—Then they are very often in a favorable condition to receive it?

Mr. Cavanagh—Very often, in the spring of the year, they are; unless you have exceptionally fine weather; unless your colonies are very strong and rugged.

Mr. Taylor—How do you think the germs of the disease got into the honey that the bees robbed?

Mr. Cavanagh—You are asking something that is beyond me, Mr. Taylor. That would be something I would be unable to answer. I would like to hear some one on that, who knows more about disease germs. I am satisfied it does get there.

Mr. Taylor—I don't think it can get there without the existence of the disease.

Mr. Cavanagh—I would not think so.

Mr. Taylor—You cannot get seed until you have planted.

Dr. Miller—When a man like Mr. Cavanagh makes a statement, I am a little careful about saying anything against it, yet, with all my respect for him, I have a little question upon one point. I believe with him, thoroughly, that there are many ways, and perhaps some that we do not know about, by which the disease may be carried. It might happen from a spore on the side of the hive, and by some accident it might be carried on the foot of the bee, and by some accident the nurse-bee might get it into its mouth and feed it to a baby bee, and it could be carried in that way, but I don't believe, as a rule, nurse-bees feed filth to their babes.

As to feeding honey: The year before last was the year I had a battle with it, and I had a fight with dearth and with European foul brood, both at

the same time. That is a combination that is not to be desired. I commenced upon the foundation, and a number of colonies were put upon foundation, and that worked all right—the cure was complete. There didn't come any more foul brood there. Some, however, deserted their hives—it was because they were starving—they had nothing to eat—no flow on—so when I threw them upon foundation I gave them honey to eat, and I gave them honey that was taken from foul brood colonies, foul brood honey, and they ate that, and the cure was all right; they didn't get the disease from it. I don't say Mr. Cavanagh is all wrong, but I say there is something he needs to question.

Mr. Cavanagh—I am glad Dr. Miller started this; I am ready to fight to a finish; I claim that the disease was in the honey. I have had too many incidents recited to me, and I think it has been shown conclusively that it is. Dr. Miller's colonies were probably not in a condition to receive foul brood when he fed the honey back.

Dr. Miller—They had the foul brood.

Mr. Cavanagh—We will let that go—but I talked a great deal with Mr. Demuth, of Indiana, the inspector, and I have worked some with him. We get together and have little confabs. He tells me that he has a man down in our State that was in a part of the country where European foul brood had never been heard of, and he bought honey of Mr. Alexander at a time when Alexander had European foul brood, and the bees developed European foul brood from it.

Now, if these statements are true, I think it proves that he fed the honey infected with European foul brood, and that his bees got it. He says he fed those unfinished sections to a colony, and that the colony became infected.

If a colony is in right condition it will not be affected, but I am just as well satisfied as anything can be that that disease can be transmitted through the honey.

Mr. Anderson—What do you mean by condition?

Mr. Cavanagh—I don't know that I am able to judge where a colony would be in proper condition, or how. I can tell you what I have seen—where the bees have taken the disease readily—where the bees have been wintered too early, and are in a weak condition in the

spring—and once I saw them where they had plenty of honey, but short of pollen; those bees became infected much quicker than the others.

Take it in a hive where it is weak—where the bees are in a discouraged condition—that will take the disease more readily than a strong colony.

A colony that is very strong in numbers of bees, and has a vigorous queen, and plenty of young bees—I don't think they would take it.

Dr. Miller—May I be permitted to interrupt Mr. Cavanagh just a minute to emphasize that point?

A lot of young bees (underscore that young)—I believe that is exceedingly important.

Mr. Howard—I believe one of the right conditions would be a good, strong colony with brood-rearing to the fullest capacity, only a little honey in the hive; plenty of honey has been coming in—then the honey stops—there is not sufficient supply to carry on brood-rearing that has begun—and I think European foul brood will develop. I am convinced that feeding over that period of dearth will exclude the European foul brood, with the exception of a few colonies that may be weak.

Mr. Macklin—I would like to have Dr. Miller explain the difference between American and European foul brood.

Dr. Miller—I suppose the question is meant to ask, how to distinguish the two.

Without answering the question, in the fullest manner, I think the most satisfactory way of distinguishing the American is by the color of the dead brood. The principal thing you look for there is, if you are looking to see if it is European foul brood, is to look for the yellow larvae—that is what I look for.

Mr. Macklin—What stage?

Dr. Miller—That will be when the larvae is about half grown, usually—it will look yellow.

Pres. York—What about the odor?

Dr. Miller—There may be almost no odor. Take a frame that is diseased, you may not smell a thing about it. If a whole colony is diseased, you may hold your head over it, and you may get something of a smell; but there is

not such a smell as of American foul brood.

Mr. Hatch—Does this stringy larvae apply to European foul brood also?

Dr. Miller—No, sir; European foul brood has but little of that.

Mr. Hatch—Then I have had a combination of both.

Dr. Miller—You may have had both, though they usually don't occur together. I think Dr. Phillips said he had not found any such cases.

Mr. Hatch—Where does the black brood distinction come in?

Dr. Miller—Black brood is European foul brood.

I suppose that name "black" (I would favor calling the American foul brood, "foul brood," and calling the other yellow brood. I suppose the black comes in after the larvae is all dead; the distinguishing feature of it is that the larvae look yellow; that is the thing you look for to find disease.

Mr. Wilcox—I don't know much about the distinguishing features of pickled brood, only what I have heard Mr. France say, that in pickled brood there is a watery sack; and where he found that sack of water he pronounced it pickled brood. The larval bees show light brown spots.

Mr. Taylor—Pickled brood as I understand it, is, as Mr. Wilcox has said. The skin of the dead bee is quite tough, and, if punctured, then thin, watery fluid of the body will flow as freely as water. I suppose there is a little sack that has held the water in, so that it pulls out watery and the bee retains its shape, which is very different from other kinds of foul brood. Pickled brood has very little or no smell, and is easily pulled out of the cell.

Mr. Cavanagh—In regard to European foul brood being found in the same hive: Dr. Phillips, when inspecting in Northern Ohio and Indiana, stated that the Inspectors reported they found both diseases in the same hive. He went with Mr. Demuth several weeks, and Mr. Demuth tells me he found both in the same hive. The ropiness of American foul brood can never be mistaken for European.

Mr. Hatch—In regard to the way this disease is carried: I could not tell whether it was European or American; I had the kind that would string out

when you stuck a tooth-pick in it, an inch and a half long.

Dr. Miller—That is American.

Mr. Hatch—I had that, and when you get that, you have something that is worth your effort to look after it. We cleaned it all out of ours by transferring. We finally exterminated the whole apiary when they carried it from a neighbor, and it made me quite a loss.

Then there was another neighbor whose bees were affected; he cleaned his apiary out but saved the combs, and he sold these combs after he had them lying idle about two years to another man, and he infected an apiary of 200 colonies, and he had to melt those up and destroy them. There are two ways I am positive they carried it—by the honey, and by the old combs.

In the case of Mr. Howard carrying the bees over during the spring when the European foul brood appeared—it was in the bottom of the cell, and when they got down so they had to use up the bottom of that cell, they got foul brood.

In the case of Dr. Miller, where they didn't get it by transferring them on foundation and the using of infected honey—they ate it all up before they got brood to feed it to.

Dr. Miller—They could not.

Mr. Hatch—That was before they got young brood.

A member—Dr. Miller, did they rear brood while you were feeding?

Dr. Miller—They must have. I don't say it is not in the honey; I think it may be. I would be rather surprised if it were not.

Mr. Hatch—No infection occurred from the outside hive without disinfecting, but the combs, if they were used again, you have got the infection just as sure as fate.

Dr. Miller—I want to add a word as to distinguishing between the two diseases; I will tell you why I think it can be done; I don't know, because diseases had the American. With the European, a diseased colony will carry out the larvae—you understand the dead larvae dries up in the case of the European, and the bees can dig it out, while the American dries down like dried glue, and they will not carry it out I think.

In the case of a diseased colony, I would find on the entrance more or

less of these dead scales they had carried that far and dropped them; I suspect you would not find that in American.

And then, if a rain came on and wet the larvae, the larvae would all swell up there, and you will have them alighting on the door step, those swelled up larvae, and would recognize diseased colonies by that.

Mr. Wilcox—Would the bees not carry them out the same way if they died of starvation?

Dr. Miller—Yes, but understand, they would look in a very different way; this is a dried-up black scale—they are a little black lump that they carry out.

Mr. Wilcox—Not black where they carry it out from starvation.

Dr. Miller—That is true; it is the white skins they carry out in case of starvation, but these are the black, dried-up larvae, and, by the way, I never paid any attention to them. You talk about disinfecting the hive—they were all over the ground for yards around each hive; I don't think the bees take the trouble to pick them up and carry them and feed them to the babies, and I don't think there is any need for cleaning up the hives.

Mr. Cavanagh—I want to bring home one more point on the subject of European foul brood: While the combs from a colony that has once been infected with European foul brood can, under conditions, be used safely again, there is a condition in which they cannot, and that is when the bees die from that disease in winter, and leave that disease in the cells. Those combs, if used next season, the swarm is sure to have foul brood.

I moved into a locality with lots of European foul brood, and I had time and again cases where hives were badly infected where the foul brood had been transmitted from hives they bought from men that had a regular hot-bed of foul brood.

At the same time I am using in my apiary some combs in which the bees were cleaned up two years ago. I don't use these combs until late in the fall, or until such time when the bees are strong in numbers—plenty of young bees and the honey-flow on; I don't attempt to use these combs until

then; then put them on top the super, but don't put a swarm on them.

Mr. Whitney—I don't know anything about foul brood of any kind excepting what I read in the papers and bee-books. I want to ask the question: In European foul broody honey has it not been recommended that it be boiled before it is fed back? Do not the experts recommend that—experts like Mr. France or Mr. McEvoy, or any of our experts on these different subjects?

Mr. Cavanagh—I believe I have read of it being recommended; all those whom I have talked with recommend it. I fed over a ton of honey last spring that I had boiled over—every bit of mine; just let it come to a boil. It has not been proven necessary to boil it any length of time, like in the American. I believe it is perfectly safe to feed after it has come to a boil. I didn't have a single case develop after doing that. I would not like to risk it without boiling, because the bees are in condition when they need feeding to be infected with foul brood if it is there. But I think all that is necessary is to just let it come to a boil.

"Is not the treatment of foul brood by Henry Stewart's method a bad theory to have been published?"

Mr. Macklin—I talked with Mr. Stewart (he lives about 12 miles from where I do) a year ago, in November, and he stated at that time that his plan, which he afterwards published, and which the publishers stated they paid the highest ruling price for the article, he told me of that plan a year ago last November; I brought up the question here at the last meeting; I don't remember exactly what I said; I explained it at that time—it will not work. I think that his theory is false; it might work in the hands of a few experts, and if they were very careful not to use those combs for brood-rearing purposes. I would not risk it.

Dr. Miller—Does not Mr. Stewart still believe in the plan himself?

Mr. Macklin—I think he does.

Mr. Taylor—Is that American or European?

Mr. Macklin—European.

Mr. Cavanagh—European foul brood, or American foul brood, or any other kind of foul brood, is not cured as long as that infection is in the combs.

The convention then adjourned to meet at 7:30 p. m.

Mr. Cavanagh—Mr. Stewart can no doubt have them apparently cleaned out in combs above a healthy colony, and he can use those combs for 10 years and it may not develop a case below; but let him try it during brood-rearing in his hive, and that disease will develop.

### Introducing Queen to Laying-Worker Colony.

"How best to proceed to introduce a queen to a colony that is queenless, and has laying workers?"

Mr. Macklin—I have had considerable experience and no trouble. I have put a queen in the cage, introduced her, and left her there for 3 days; then take one of the combs out of the hive and stand it up beside the hive and let the queen out; then if the bees let her run amongst them (if they show any hostility, I rescue her and put her back again for another day), but if they pay no attention to her I put the whole thing back and don't have any trouble.

Mr. Purple—I simply take a frame out of a good healthy colony, with a young queen, and put it in there.

Mr. Anderson—The best way is to smother the bees.

Dr. Miller—No, I would not smother them. In a majority of cases when you have a case of laying workers you have a colony that is more or less reduced, and the bees generally quite old; I would not want to smother them, but distribute them around among friendly colonies.

Mr. Oliver—I would like to give a dead sure way of curing them. Put a good, strong colony on top of that laying worker colony, with queen in.

Pres. York—We will now have 15 minutes for intermission.

### Treasurer's Report—Election of Officers.

After intermission the Secretary-Treasurer gave his report showing a deficit of \$3.15 at the opening of the present convention. As there was a deficit of \$13.00 last year, some progress had been made.

On motion the report of the Secretary-Treasurer was approved.

The election of officers for the ensuing year came next, with the following result:



For President, George W. York, of Chicago; Vice-President, Chas. G. Macklin, of Morrison, Ill.; and Secretary-Treasurer, Louis C. Dadant, of Hamilton, Ill.

### How Much Should Producer Get for Honey?

"If a grocer retails a pound of white extracted honey in jar at 40 cents, how much ought the producer or bee-keeper get?"

Mr. Macklin—30 cents.

Mr. Taylor—27 cents.

Mr. Niver—I would say the producer would "get it in the neck."

Mr. Smith—From what I have studied of marketing products under our present system, about 17 or 18 cents. I believe you will find the greatest machine company that manufactures harvester machinery, and all of these trusts, pay out more money for the marketing of their product than they do for the manufacture. It cost more to market a self-binder than it does to make it—to sell a suit of clothes than it does to make a suit. It costs more, I believe, in nearly all lines of manufacture to sell goods—to put them in the hands of the consumers—than to manufacture. I believe you will find that is true.

Pres. York—The producer would have to put it up. How much, if sold at 55 cents per quart?

Mr. Cavanagh—I would like to know as to whether you mean one can or a car-load; you can figure a little closer in selling in large quantities?

Pres. York—If you were to take a single can?

Mr. Wilcox—The question will again come up as to whether you leave your honey with the retail grocer, or ship it; if you have to ship it you must have a wider margin. If you sell it to your own grocer to retail, 5 cents is enough.

Mr. Niver—We are getting on a very tender point with me. I have studied it about ten years—that one question—and coming right down to the fundamental thing, you have to understand that the production is limited by the consumption, and if you get the price on honey too high it cuts down the consumption below a point where it is profitable to produce honey at all.

I contend that the only way to raise the consumption of honey, to get it up

where it ought to be, is to get the price within the people's reach; the average price of honey, in stores, where I am traveling, is 30 cents a pound, excepting for medicines and an occasional luxury. That is all wrong. The argument of the bee-keeper is that meat is very high, and so is flour, and butter, and eggs—why should not honey be? The point is, that meat and butter do not come into competition with honey at all. Honey is a competitor of sweets—sugar, molasses and syrups; they have not advanced anything like any of the other necessities of life.

Now I contend that a price of 12½ cents for extracted honey—I don't say anything about comb honey because there is so little of it consumed it doesn't amount to anything; when you get above 12½ cents a pound for extracted honey you are cutting down the consumption to a point where it is below a profit to produce it.

Can we get it to the consumer at 12½ cents, or below that? Everybody shakes their head and says, "No"; I say it can be done, and be done at present prices, but you must cut out the expense—the 60-pound can first; that is sheer waste; costs ½ to ¾ cent per pound. The bee-keeper must put up his honey in retail packages; then the bee-keeper must sell direct to the grocer or the general market. That is what I have been contending for, and have been trying to systematize.

The first thing the grocer says is that there is no demand for honey. "I have a dozen little tumblers—that sell at 15 cents a piece, 6 ounces, and I don't sell a dozen in a year." He ought not to at that price. I go right along and sell a couple of tons in his same town; he thinks I am crazy, and I sell at 12½ cents a pound.

I attempted to put up honey in retail packages that would ship at fourth-class rate. That has to be done. I have been retailing that to the consumers and have a good, big trade; they will take it that way, at a decent rate, and take a great deal of it.

I have talked this to Mr. France, but he says it won't work because bee-keepers cannot be trusted; that they will put up poor honey if it is covered up by tin. I have found that bee-keepers do not put up their honey

clean enough to put on the table. The reason is the honey is too thick to go through a fine cloth when they put it through the extractor. I have to heat it up; it may not be dirt; it may be propolis or gum, but you must take that out before the people will think it is clean.

Can we get the bee-keeper to put up his honey in proper shape? So many bee-keepers simply work for comb-honey production, and comb-honey production is going out of style.

There are a good many things in the way, but it can be done, and if you sell the honey cheap enough to people, they will eat it—so that we can make it a profitable business to keep bees and produce extracted honey.

Pres. York—We are getting a little off the question. The second part of this is: "How much should the bee-keeper get if the retailer sells a quart of honey for 55 cents?"

Mr. Wilcox—He should not sell it as high as that.

Mr. Macklin—It is too much.

Mr. Purple—There is a case where the middleman comes in for his big profits. For the last two or three years I have begun to see into the middleman business. After being in the manufacturing business, you find the middleman comes in and says: "Why, now you want us to sell this product, how much do you want?" If a staple article, it will average in price anywhere from 20 to 50 per cent for the middleman; he doesn't work for nothing. You will find that out right away. The ordinary middleman is willing to do it for about 30 per cent; you add that to the price of honey and you will see what you are getting. I don't think there is any dealer here but what will bear me out in that. The actual producer doesn't begin to get what is received for the article, no matter what it may be.

"If white extracted honey is put up in 12-ounce bottles, how much will the bee-keeping get when selling to stores in cities like Detroit or Chicago?"

Mr. Macklin—What do the bottles cost?

Pres. York—Suppose they cost 3 cents each, by the dozen. How much would the bee-keeper get when selling by the dozen?

Mr. Niver—I found it retailing in stores for 25 cents, as a rule. That

makes us keep our honey at home and eat it if we can. I don't believe that is good sense. I believe the package is too small, to commence with. I don't believe in bee-keepers putting it up in less than 3-lb. packages, and I think they should be sold for 35 cents at the retail grocers; that is what I have been contending for, and trying to systematize some way that it could be done. Honey at present prices is a little high, and I believe it could be done, with a proper systematizing of business, and, perhaps, a little co-operation. It is a pretty hard subject to get all around.

Mr. Ahlers—Honey can be sold at 35 cents a quart, and everybody make a living at it.

Mr. Kimmey—It occurs to me there are a good many talking on this subject who don't know as much as some of those who don't speak out. We are ready to cry, "The middleman is to blame!" Having never been a middleman, I don't know much about it. You remember when we went to Texas, and went in to buy some honey, and it was labeled "York's Honey?" I would like to hear from our President, and from Mr. Arnd.

Mr. Cavanagh—I would suggest we divide this meeting into two classes—the bears and the bulls; the producers and the fellows who are going to buy and sell again.

Dr. Miller—I am not a middleman; I am one of the "end" men in the show! (Laughter.) I would suggest this: We are getting away, and persisting in getting away, from the question; I might as well stay away from it. Mr. Niver says: "Cut out the 60 lb. can." I would ask the question, whether it might not be well to keep the 60 lb. can, and get up a trade in honey in 60 lb. cans? I don't see why it might not be a good thing to strive to get more families to use 60 lb. cans of honey. It is not too much for a family to use, and if you can do that, and get the people to eat it at the lowest rate they can get it, a good deal more honey will be eaten, and you will be doing the people as much good as you will the bee-keepers. A man today—a citizen of Chicago—asked me a question about comb honey and extracted honey—whether he would get more, or as much, by buying extracted as the comb honey. I told him if he

was after the amount for the money expended, to buy extracted honey. He said they paid 25 cents a pound for it, and wanted to know if there was any way he could do any better. I told him if he bought it in a 60 lb. can, he could get it for 10 cents a pound, and he said that was the thing for him to do. People don't know that; if we can get people to know that, they will buy that much more honey. We keep talking about 2 lbs., and 12 ounces; if we go at it in the right way we can get a lot more people to buy 60 lb. cans of honey at a time.

Mr. Wilcox—I agree with Dr. Miller. I have sold, this fall, 30 60 lb. cans that I suppose were divided up one can to each family, and I keep nothing smaller than 12 lb. cans for shipping, but for home trade and the neighbors, I can get along with a 10 pound pail, but would not handle anything smaller. I tell them if they want it in small quantities, for some one to buy the large one and divide it up. I believe most families can use a 60 lb. can of honey, especially west of the Mississippi river, and I have sold more than a dozen in Milwaukee this fall.

Mr. Ahlers—I would like to give you my price list to show you that I try to sell to my customers 60 lb. cans; I think my price list will interest you. It is as follows:

"To My Friends and Patrons—I herewith take pleasure to hand you my price list for honey for the season 1910 and 1911. These prices take effect September 1, 1910. Orders received in July and August, accompanied with payment,  $\frac{1}{2}$ c pound less.

6 10 lb. pails clover honey, at 11½ cents per pound; 12 5 lb. pails clover honey at 12 cents; 60 lb. cans, in one can, at 11½ cents per pound.

The above put up in boxes holding 60 lbs. each. Boxes weigh about 8 lbs.

One hundred and twenty pounds of honey, 2 cans in one box; weight of box, about 15 pounds. Less than 60 pounds size, quarter of a cent per pound higher.

Freight prepaid on shipments of 120 pounds or more."

And most of my orders run 120 pounds or more, because the freight amounts—the highest is 75 cents anywhere in Dakota, and to the farthest points in New York and Boston it ranges from 75 to 90 cents a hundred pounds, and if I get orders from New

York and Boston, they really don't belong to me—they belong to some other bee-keeper, and I can afford to pay the freight; they will take 120 pounds if they can save that little freight; it amounts, to Chicago, 25 cents. I ship a lot of it to Chicago. They would take only 60 pounds, or 10, if it was not for this little item of freight that I allow them.

"Thirteen-pound pail, at 12 cents per pound; 25-pound pail, at 11 cents per pound.

Shipped in light, sealed carton boxes, weight, about 1 pound each, by American Express Company, Chicago; rate, 80 cents per hundred pounds; minimum, 35 cents. Less than 60 pounds, one size, quarter of a cent per pound higher." (If I had that to do over I would charge 1-2 cent per pound higher.) And I believe that bee-keepers can sell their honey in 60-pound orders. I think, as Dr. Miller says, the people can be induced to take 60 pounds if they get it cheaper.

Mr. Arnd—A 12-ounce bottle of honey would retail in Chicago at 25 cents.

A Member—What should it retail at?

Mr. York—I should say 20 cents would be a fair price.

#### Price of Extracted Honey.

"Is there any excuse for any bee-keeper selling extracted honey for 7 cents a pound this year?"

Mr. Taylor—Not if it is good honey.

Mr. Wilcox—I have plenty of it to offer at that price.

Dr. Miller—What is the matter with it?

Mr. Wilcox—Honey-dew. It is good eating; if you don't know what it is made of.

Pres. York—All those who think there is a good excuse for offering good, white extracted honey at 7 cents a pound this year, raise your hands. (No hands raised.)

#### Comb or Extracted Honey?

"Which should we produce, comb or extracted honey?"

Mr. Taylor—I think we should produce comb honey.

Pres. York—How many think we should produce comb honey, raise hands. (15 hands raised.)

Pres. York—How many think we

should produce extracted? (Same number—15.)

Mr. Whitney—Dr. Miller voted twice; that is not fair. Circumstances alter cases. I would like to produce extracted honey, and I would like to produce comb honey. I would not do as Dr. Miller did, vote both ways.

Mr. Cavanagh—The conditions make a great deal of difference, whether it is practical to produce comb or extracted honey. You have to have a pretty swift and steady flow to produce comb honey advantageously. If you have a slow flow it makes it unprofitable, as well as getting a poor quality.

Dr. Miller—In all seriousness I would say we ought to vote on both sides. I do believe that extracted honey ought to be furnished to the public, and so do I believe that comb honey should. The majority of people, perhaps, cannot so well afford to have comb honey. I believe that comb honey, in its purity and perfection, is just a little better than any extracted honey you can get. I know it is a little dangerous to say that here, but I don't believe you can get quite the same quality when you extract it as you can in the comb but there is so little difference for a staple article that I should say extracted honey is what they should have, but some are willing to pay the extra price for comb honey and they ought to have it, so if you ask a general question I should say we ought to produce both.

Mr. Whitney—I take back what I said; I vote with you!

Mr. Smith—I have been trying to find out which I ought to eat, whether the wax in the comb is of any benefit to the system if taken into the system. I have been trying to find out which is the most wholesome as a whole, so when the question is answered, we should produce the honey that is the most wholesome for the human family. We should produce that which is best for the people, and for that reason, if there is no difference, if some people require wax and some do not, then it is a matter for the local physician to prescribe. If there is no difference, or if there is, I believe each person ought to determine it for himself: I am practically on the fence. I don't know whether to become a middleman or a producer; I don't know whether I should not eat honey at 12 cts. a pound or potatoes at 60 cts., or bacon at 28

cents; I don't know what I can afford to pay for honey to take the place of those foods.

Mr. Wilcox—One Doctor once said, "Eat what your appetite craves, if it agrees with you."

### Getting Rid of a Prolific Worker.

"What is the best method to get rid of a prolific worker?"

Pres. York—You might kill her.

### Strengthening Weak Colonies.

"What is the best way to strengthen weak colonies in the spring?"

Mr. Taylor—Feed them.

Mr. Wilcox—The answer to that question is very important if the members do not already know; but if they all know they cannot learn any more. I think the most important point is to supply them bountifully with food and warmth, and they will take care of themselves.

Dr. Miller—I think that question may be answered in this way. In actual practice all of us have colonies that are weaker than the others and we want to strengthen them; I don't strengthen them by feeding them; as a rule we strengthen them by taking something from the stronger colonies.

Mr. Cavanagh—I would like to know how many here have tried the Alexander method for weak colonies. I think a great deal of it. I would like a show of hands on this. (Five raised hands.)

Pres. York—How many succeeded? (No one raised hand.)

Mr. Wilcox—I don't think we understand the plan alike.

Dr. Miller—I don't know which way to vote; I tried and succeeded, and I tried and failed.

Mr. Huffman—That plan of increasing the colony when it is weak—Mr. Byer, of Canada, this year at the Albany Convention gave a very good idea of it. Take the frames of brood, shake the old bees and go to several colonies, and shake the young bees in front of weak colonies and they would accept all of those young bees and become workers, and you would have a strong colony.

I have tried the Alexander plan and failed. Maybe I didn't know how.

Mr. Bull—Mr. McEvoy gave a plan of taking the brood all out and starting a colony.

Mr. Niver—I think that is quite a prominent practice in Wisconsin, to shake the young bees in front of the weak colony.

Mr. Cavanagh—That would take care of the brood and make a good colony, but make an increase at the expense of other colonies. The time to make an increase is at the time of the clover season.

Mr. Wilcox—Have any of the members here tried taking a very weak colony and placing it in a warm room or chamber that would be kept at a uniform temperature, to see if it will cause them to build comb?

Mr. Smith—I intend to try it next spring; I have an incubator with outdoor entrance, and am going to put in a thermostat and test the temperature and see what those bees will do; after the winter is over I will test it again in the spring, and see if they will build up earlier by giving them artificial heat; keep the temperature even. I am going to try that.

Mr. Taylor—My position on that question is this: That we are in the business not for fun but for a living, and if we can't have enough good colonies to satisfy ourselves and produce a crop that is satisfactory, we better go into some other business; if they are very weak, let them go.

Dr. Miller—Unite them with another colony that is stronger. If you have two or three of those little weaklings in the spring unite them 3 or 4 of them—and after they have united they will die out; but if you have one say with perhaps a rather weak colony, but strong enough so it will live of itself, unite with one of these little weaklings, that will be a help, and it will do better than one alone would have done.

#### Moisture in a Bee-Cellar.

"Is it advisable to have moisture in a bee-cellar for bees to winter well?"

Dr. Miller—What do you mean? How much moisture?

Mr. Wilcox—It is generally considered hurtful to have moisture in the cellar, but I have several times in my life wintered bees through the whole or a portion of the winter with a foot of water in the bottom of the cellar, and my opinion is that if the water is colder than the atmosphere

above it, it is beneficial rather than hurtful, but if the water is warm it would give out steam and be decidedly bad; a running stream through the bottom of the cellar is rather beneficial; I am not opposed to moisture because it is moisture, provided the temperature is right.

#### What is a "Breeder" Queen?

"What should be the characteristics of a queen denominated 'a breeder?'"

Mr. Taylor—Dr. Miller would say a long-lived one.

Pres. York—That would be one of the characteristics anyway.

Dr. Miller—Possibly the meaning of that question is, what is meant when a man, in advertising, says a "queen-breeder" or a "breeder" at so much; what he means by that word "breeder" I think, as a rule, is that it is especially selected; because it is better than the average, or is superior in some way and I think that the word is used in a very mixed-up sense and that sometimes it doesn't mean anything and sometimes it does. It depends on who the man is that says it. If a man wants to sell me a queen, and he says, "There is a breeder," I would understand him to say, "That is one of the very best queens I have," but what the word would mean in one case and not in another, I don't know.

Mr. Whitney—I asked that question because I didn't know what the queen-breeders meant when they advertised a breeder for \$10.00.

Dr. Miller—You will never find out.

Mr. Whitney—I don't know but what Dr. Miller or Mr. Taylor, or some of the men here, might tell me what it meant. I have often bought queens at \$1.25 that I think were as fine as any queen bred, as fine as a queen that was called a "breeder" in any apiary. It occurs to me that unless there is some peculiar characteristic of these queens called "breeders" I don't want any of them. They ought to be long-lived and prolific breeders, and produce good, strong, bees; it seems to me there should be something—I don't know what it is—that recommends them.

Mr. Taylor—What I think they mean is, that they mean to sell you a queen at a good, big, round price.

Mr. Whitney—I would like to know how old they are to be before we can determine that they are a breeder; if two years old they are pretty nearly ready to die; if one year old they have a little time left them in which a man could get some of his money back.

#### Accepting an Introduced Queen.

"Is there any variety of bees that will accept an introduced queen more readily than the Italian?"

Mr. Wilcox—I am not going to answer that question, but ask another along the same line, almost: Which will accept the queen the more readily, old bees or young ones?

Dr. Miller—Young ones.

Mr. Wilcox—I have seen articles printed in some of our bee papers claiming that old bees would, while my theory is that the young ones will.

#### Upward Hive Ventilation.

"Is upward hive ventilation ever necessary? If so, how may it best be given?"

Dr. Miller—The first winter I wintered bees in my cellar, upward ventilation was entirely necessary; if there had been none the bees would have died. I turned my hives all upside down; that was the orthodox way—that is Quinby's plan, and it is good today. It does not matter where the ventilation is in the cellar, if you have enough of it. In that case they were entirely closed at the bottom and opened at the top, and in that case, ventilation at the top was absolutely necessary; but I don't believe that it is absolutely necessary if there is a reasonable amount of ventilation below, because my hives go into my cellar exactly as they were on the summer stand, sealed up tight, and the bees winter well.

Mr. Whitney—Does the question mean summer or winter?

Mr. Howard—I had reference to the summer; I gave that question.

Dr. Miller—I don't believe it is absolutely necessary if there is sufficient ventilation below, but in a great many cases I believe it is a very great advantage. A great many years ago Adam Grimm, of Wisconsin, and a good authority, at this place (before the days of sections) he had boxes on top of his hive, the lid of the hive was tipped up at the back so that the air

could pass up through there. I can see him there, sitting with teeth together saying in his German way, "I consider that very necessary." For some years I practiced having my section supers shoved forward so as to allow the air to pass up at the upper back end, but it hindered the finishing of the sections at that point a little, and for some years I abandoned the plan; but I practise it now a good part of the summer, because I think I gain more than I lose by it. The general advantage to the whole is so much.

Mr. Macklin—I tried Dr. Miller's plan of shoving the super ahead on 40 colonies that had  $\frac{3}{8}$  inch hive entrance, and in all those 40 colonies I had completed sections except one super, and that had the rear row that were not finished out while all the other 18 sections were completed, and during the summer time the bees clustered around the opening and didn't seem as though they were getting any air at all during the middle of the day, and sometimes stayed there all night and would be clustered there in the morning.

Dr. Miller—During the past two years the rule seems to have been reversed. I had some colonies with the ventilation, and some without; I found that in these two years—this year and two years ago (last year was a failure)—I found those colonies that had had ventilation finished up their sections without ventilation better than those with it, reversing what had been the rule formerly; I tried to account for it in this way: The weather was exceedingly hot, and that gave them a chance to stay there and finish up better.

Mr. Whitney—My hives I have always used are double walled, tight bottom, consequently if the bees get ventilation in hot weather, it had to be by moving the cover. The cover telescoped about 2 inches over the top, and under that cover there would be as many as 3 sections or supers for comb honey. If I moved the cover forward slightly it gave good ventilation, and I always had perfect sections at either end of the section cases, as well made as those in the center and at the side also; that has been my experience; the bees would hang out in great bunches before the hive, before the cover was slid, and would get back in the hive in short order after I moved the cover forward. There would be ventilation



enough up in the top of that hive, almost enough to blow out a candle. I have often struck a match and it would blow it out.

Dr. Miller—Did the air pass upward? Did you notice after it was blown out that the smoke was going down in?

Mr. Whitney—Not a bit of it. I wish Dr. Stearns was here he was in my yard once when I tried to experiment; he put his handkerchief down and it blew it right up out of the hive.

Mr. Howard—I have for several years considered that upward ventilation was necessary, and on shifting the super, as Dr. Miller says, I have gotten incomplete sections, so I began to cast about for some way of ventilating the brood-chamber from the top. I went to work and equipped practically all of my supers (I made them all myself), with hollow section-rests, and each of those section-rests had holes at the side distributed around the top of the brood-chamber, 30 in all; this conducted the air along through the end of the super up through the end, boring a hole  $\frac{1}{2}$  or 2-3 up, and I believe it has greatly helped me in swarm-control.

Mr. Cavanagh—I am satisfied that it is important to have plenty of ventilation in the hive to make the honey ripen.

#### Workers and Drones From Italian Queen.

"Why is it that the worker progeny of an Italian queen show markings true to type, while her drone progeny show every degree of variation from almost pure orange to black?"

Dr. Miller—Nobody knows.

Mr. Smith—I don't know. I believe from observation in other lines that I might give some reason for it. I believe that comes from the preponderance of relation, we might call it, of the drone. The father of the drones is not the father of the workers, as I understand bee-culture. Now you may take ordinary animals, and in crossing with the best grades, or best breeds, that breed is very material to the offspring; the strongest will certainly predominate. If that queen-bee is what we might call a mongrel, and if she is mated with one of pure breed, we would expect the workers to be much nearer the true variety of the

father of the bee than the mother. Is not that true?

Mr. Whitney—I asked that question, because I have carefully observed in some of my best colonies, where the queens were supposed to be pure 3-banded Italians or 3-banded workers: I have noticed that the drones were almost every variety of color, from almost pure as the queen in color, to drones that were quite dark, and it occurred to me that it might be possible that there was some taint, after all, in the best queens we get, from away back, and whether the Italians would not degenerate unless we took special pains to keep up the grade, if left to themselves—whether they would not finally go back again and become perhaps degenerated. I thought perhaps there would be some one here who might answer such a question.

Mr. Wilcox—I can express my theory on it from all I have studied. The drone is the product of the unfertilized egg, and is not affected by the mating of the queen, which laid the egg, but will be of the same race and strain as the blood of the mother. The mother may have that mixed blood somewhere, and it is either in the may be called a pure Italian, and yet there is in her a strain of dark blood if the drones are mixed. If the drones are all yellow and alike, you may be absolutely sure that your queen descends from pure blood.

Mr. Whitney—We are often told that those drones are just as pure as those that are evenly marked; we are often told that those that are irregularly marked are just as pure as those that are evenly marked.

Mr. Wilcox—I would not consider them pure if they are not evenly marked. If a queen produces part yellow drones and part black, or mixed drones, there is some mixed blood somewhere, and it is either in the queen or the drone.

Dr. Miller—Did you ever see an Italian queen that would produce drones exactly alike?

Mr. Wilcox—Yes, I bought some queens from a man in Michigan that produced deep yellow drones.

Dr. Miller—I doubt their being pure Italians. I am talking about pure Italians. These Americanized Italians

—they have gotten away from their purity when they are yellow all over.

Mr. Wilcox—I took that as the standard of purity—the evenness and regularity of the markings.

#### A Queen-Experience.

“After a queen has ceased to produce worker-eggs, and is laying drone-eggs in worker cells, is it possible to make a worker-layer of her again?”

Dr. Miller—Yes, Mr. Whitney did.

Mr. Whitney—I suspect nearly every one here would say “No,” it can’t be done.” If she were an old queen I would say so, but I had just such a case as that. Dr. Bruenich, of Switzerland, wrote me that it is one of the most interesting cases he has heard of, and he thinks experiments ought to be made along that line to ascertain, if possible, what feeding will do. I will state this case. I have stated it once or twice before, and you people didn’t dispute me, but I thought you didn’t believe me.

I had a queen I introduced some time in the latter part of June. I clipped her right wing, so as to be sure to know her and keep her in the hive. That season was a poor one, but she did fairly well, and by dividing I made two colonies of bees, though they didn’t have honey to carry them through the winter. I fed them. About the first of April, the next spring, I visited the yard, and that was one of the first colonies I visited, because I thought a great deal of that queen. I opened it up and found the colony alive, but they were the worst looking lot of bees I have ever seen—slim, thin—the queen had changed from her yellow, bright color to a dusty brown, and was almost as slim as a wasp, and in the center of the brood-chamber she was laying; more than 3-4 of the brood were drones in worker-cells.

There were two lady bee-keepers there, and saw this, and they said to me: “Mr. Whitney, is not that too bad?” I said: “Yes, it is, but I am not going to kill that queen.” She was not a year old yet. She had laid most of her eggs all right the year before.

I commenced feeding for 8 or 10 days, and after two weeks, or a little over, I examined that hive again. I happened to take out the frame that had the queen on, and she was as plump and nice as she was small before; her

bees were looking better, and there were no more drones to be found in the worker-cells at all; by dividing I made four colonies of bees from that one that summer. The question is, what caused that change in the queen? Some thought it must have been another queen, but I know it was the same old queen.

I think experiments ought to be made along that line, to see what feeding will do with queens under similar circumstances; but we might attempt to experiment under different circumstances, and fail. They were peculiar in this case. While there was plenty of honey in the hive, it was glazed over as if varnished, and the bees seemed to have all they could do to dig in and get any feed at all. They were nearly starved and heavy with honey.

I would like to know if any here have had a similar experience, and if they take my statement as true. I wish that somebody, next spring, if he finds a colony of bees that come out weak and poor, that he would try it out, and see if this can be done by others.

#### Best Package for Retailing Extracted Honey.

“What is the best package, or container, for extracted honey in a retail way?”

Dr. Miller—Sixty-pound can.

Mr. Niver—I sell honey in 60-pound cans wherever I can, and the worst trouble about selling a 60-pound can is, to find anybody who has money enough to pay for it. A 3-pound can comes nearer the size of the average family, although I have sold a great many 60-pound cans the present winter, but a great majority of my sales won’t average over 6 pounds at a time, and this merely on account of the financial standing of the people; they are working for wages, and don’t get wages enough to get far enough ahead, except in exceptional instances, to buy a 60 pound can of honey. They would buy it if they had the money, I have no doubt.

Mr. Wilcox—I have sometimes said that the larger the city in which you sell it, the smaller should be the package. If you will send your honey west of the Missouri river, a 60-pound can is small enough; it does very well in Dakota, but when you go into Wisconsin and Illinois you will have to

arrange for the smaller ones; many will want 10 or 12 pounds, and, in large cities, give them what they want, no matter how small they are.

Mr. Smith—I have discussed this matter with the people. I consider taking up the matter of retailing honey. I know that if people are educated up to it, they will want it, and I know that in Chicago there are thousands and thousands of families who are willing to pay for it, but we have to meet the local conditions.

I have talked with a good many families in good circumstances about honey, and a large majority of them say: "I want just honey enough, in a package, to put on the table, and let that be the end of it. I don't want the hired girl going to a 60 lb. can, or any other can; I want the package of honey to be just like our breakfast food, so that I can put it on the table and it will all be eaten up, the dish washed, and that is all there is to it."

On that point I want to say: The smaller the package the larger the price per pound required, and necessarily so, because it costs more to distribute it. The grocer won't sell it unless he has 25 per cent. It costs him 16 per cent to 18 per cent to do that business. He wants 33½ per cent on most goods, and usually 50 per cent on honey—because he sells so little of it he must make a big profit. I offer him 25 per cent, and I say, "If that is not enough I will deliver the honey myself." They must accept a smaller profit, as on other staple goods, the same as flour or butter; they don't get 25 per cent on flour, butter and sugar—why should they boycott honey and want 50 per cent to 75 per cent when they are selling sugar for less than 10 per cent?

I believe with proper work among the bee-keepers, the grocer can be supplied with honey he will sell at 25 per cent profit, and then by cutting out unnecessary expense in distribution I believe he can retail it at 12½ cents a pound, and then the sale of honey will move along, and move lively.

#### American Foul Brood.

"If one's bees have American foul brood, course of management will produce the greatest profit and leave them without the disease at the end of the season?"

Mr. Wilcox—I would say, send for the foul brood inspector.

Mr. Ahlers—I think there is one way that foul brood can be annihilated. The people whose bees have foul brood—they bother around with it for years and years; some have it for 10 years and some never get rid of it. They are advised of these different methods of getting rid of it. I say, get those colonies working for honey. If a colony gets a little weak, unite it with another one, and just as soon as the honey season is over, burn them up and save the combs. Use all the good combs and get another crop of honey, and you will have no more foul brood to put away in the winter, and take out dead bees in the spring.

I think those bees will give enough honey to buy another colony of bees, and more, too; and the wax melted up will buy the foundation, and all you have is your labor for working it over. You don't need new combs if you get bees from the South. They will replace those that you burnt up. That is the way I would do.

Mr. Macklin—I have followed along that line somewhat, but I have not had very many bees that have had American foul brood. I sold the honey for 6 cents a pound f. o. b. my town, to bakers; then I had the combs for wax left. They will produce more than enough wax for the new colonies I put in, so I never carried over a colony to the next spring that had foul brood in the fall.

Mr. Cavanagh—That is all very well, with this exception: In the first place, I don't think a bee-keeper has any right to keep a colony that has foul brood, all summer; the time to take care of it is in the honey flow, by the McEvoy treatment. In the fall of the year the question resolves itself to this: Is that colony worth saving or not? If it is not worth saving, give them carbon di sulphide, rendering up the combs and saving what honey there is; if they are worth saving, why, save them. You want to put in good, clean, healthy combs of honey for swarming. My experience has been somewhat limited as to American foul brood.

Mr. Jones—So far as shaking them on combs in the fall is concerned, two years ago we shook 3 colonies, one died over the winter; one showed foul brood in the spring—the other didn't;

last fall I shook 9, and 8 out of the 9 showed foul brood in the spring again.

Mr. Cavanagh—Where did you get the combs you put the bees on, and what time did you shake them?

Mr. Jones—I got the combs from good, healthy colonies. I shook them when the bees were in flight (in November).

Mr. Cavanagh—I cannot account for your failure by the bees carrying imperfect honey with them? They don't breed any more in the fall; they must consume that honey in the winter.

Mr. Jones—I don't know that they consume that honey in the winter.

Mr. Cavanaugh—I cannot account for that theory. I even do this: I put away extracting combs late in the fall after the brood is all hatched, and give them a good disinfecting. If there is any scattering of foul brood I have never seen it. I don't think there was any disease in those combs; I did that the year we had European foul brood. I think those bees were infected from some other way.

Dr. Miller—I think possibly Mr. McEvoy recommends this: That in the fall, after breeding is done, you put your infected colonies upon full frames of sealed honey. Now if Mr. Jones had frames that had some empty cells in which they could carry and deposit honey that they had before—and I think Mr. McEvoy would object to that—he insists that the combs must be entirely filled and sealed with honey; and Mr. McEvoy recommends that very strongly as a good treatment to give in the fall of the year—a diseased colony, full sealed frames of honey, and it is just possible that in Mr. Cavanagh's treatment he had the full frames, and in Mr. Jones' he had frames that were only partially full.

Mr. Jones—Not every cell was filled; that is a pretty hard thing to get; you may get an individual comb here and there, but it is a hard thing to get every cell filled.

Mr. Cavanagh—Were these colonies badly infected, or only slightly?

Mr. Jones—They were not badly infected.

Mr. Cavanagh—I don't want to be misunderstood in the matter. I would not treat any colony that is badly infected with American foul brood; I would put them out of existence. There is no use in bothering with a colony

of bees unless they are of some commercial value. A few bees would better be killed than to fuss with them.

### Strengthening Comb Foundation.

"Could not a brood foundation be made heavy at the top and tapering to thin super at the bottom, so that in 7½ in. frames no wire would be needed?"

Pres. York—Mr. Dadant should be able to help us on that.

Mr. Dadant—I never have been able to do anything like that yet. It is hard enough to get a straight sheet without any knots in it.

Dr. Miller—Something that is practically close to that in effect has been done. I believe there has been a patent taken out, and there are some that practice it. Take a brush and paint the upper part of the foundation with melted wax, so as to make it heavier at the top; some speak very highly of that. A Mr. Vogeler, of California, invented the process.

Mr. Huffman—Did not Mr. Poppleton recommend that at the Sioux City Convention?

Pres. York—He spoke of it, but the California man recommended it.

Mr. Howard—I thought it might be made so that one side would be thin and the top thick.

Mr. Taylor—It is an easy matter with a good press.

### Swarm Control and Comb Honey.

"What is the best plan for swarm-control when working for comb honey?"

Mr. Taylor—I can tell you how I do. I give them plenty of room. Not too much but see that they have plenty of room; then there will be some swarms, and I catch the queen; put on the queen-trap, put the swarm back; the old queen will be killed and they will come back. If they go up, as they will generally, unless it is near the end of the season—when the swarm is out I pull out all the rest of the queen cells and put them back, and that is the end of it.

Dr. Miller—I don't know; I am trying to learn that. One way, a little like this, and this is older than any of us—put the swarm back every time it issues, and if you keep doing that you will finally get the thing over, because the old queen will be killed in a little

while and the first young queen comes out; put that back, and there will be a battle and one or two queens will be killed, and after you return your swarm a few times there will be only one left.

Mr. Taylor—That keeps you working all summer!

Dr. Miller—No, within 16 days, and the thing will be ended.

Mr. Whitney—I would like to ask Mr. Taylor if the queen was an exceptionally good one would you kill her? Would it not be better to cut out the queen-cells and put the swarm back?

Mr. Taylor—That is more trouble, and generally there are liable to be young queens out, anyway. There is one thing, perhaps, well for you to remember: If you kill the old queen and put the swarm back, and the swarm goes out with the young queen, when you go to take out the cells you will find several young queens have gone out. It is not necessary to pay any attention to the young queens, only to the cells; you put the swarm back and those young queens that are out will dispose of each other without any more trouble.

Mr. Howard—During the past season, with 40 colonies of bees storing an average of 80 lbs. per colony, I have succeeded in what is to me almost perfect swarm-control. How it may work out next year, I don't know.

My super, in the first place, holds 52 sections 11-frame hives; 52 4x5 sections; I use fences. In the beginning I put on 8 to 12 sections; put them inside of two fences; put a piece of quilt over them in the center of the super; seemingly the bees took to it readily.

I got 80 lbs. per colony and with perfect swarm-control; I had one swarm go off before any supers were put on, and I had one swarm come off when I thought it was so late there was no need of removing them. I "wound up" my honey harvest with less unfinished sections than I ever had before.

Dr. Miller—While I said I was learning about that and didn't know the answer, I might give two or three points as to how to prevent swarming. You all know that plenty of room is an important matter, and so is the matter of upward ventilation; that will help to prevent swarming.

As to the matter of giving plenty of room, I believe it is a good plan when you have the first super sufficiently full so that you put the second one under it, at the same time to put an empty super at the top, and always to keep the empty super on top until, when the season begins to close, you will find the empty super on top. If it happens they are crowded for room that will act as a safety valve.

Another thing that helps; will come on the same line: If you will get the old queen away, and get the young queen in her place—a queen that has just begun laying—and get her to work, that as a rule is safe from swarming the same season. There may be exceptions. Let the colony become queenless; if you take away their own queen and let them be queenless for 10 days—cut out the cells and return the queen, generally that will stop swarming for a time; they may swarm again; they may in some cases.

As very closely related to that I want to mention the subject of destroying the queen cells. A beginner, generally, when he finds out when the cells are destroyed that stops the rearing of queens, he knows that he can keep cutting out cells and there never will be any swarming—he will find out that won't work at all. And yet I have a good deal more faith in destroying cells than I used to have.

I believe there is a difference in strains of bees about swarming, and if you prevent swarming in a strain of bees a good many years, they will not be so much given to swarming; and if you have a strain that is not very much given to swarming, if you will destroy the cells, in perhaps half the cases the tendency for swarming will not be repeated, so I think it is worth while to destroy the cells often if it does not stop swarming in more than half the cases because the other half that it does stop will do a whole lot better work than if they were allowed to swarm.

Mr. Taylor—Do you ever put the swarm back and find that not more than half of them would swarm out again? When a prime swarm comes out, put the swarm back, queen and all; and often not more than half of them will swarm again.



Dr. Miller—I would not think so many as that.

Mr. Taylor—I think half of them will stay with her.

Dr. Miller—What do they do?

Mr. Taylor—They go to work.

Dr. Miler—I would not expect so many as that, and yet bees are such stubborn things if they can have their own way about it. For some years I practiced taking out the queen and putting her up into a nucleus and setting it on top; sometimes the nucleus would swarm out, and if they did they would go back in the hive, and they had their own way.

Mr. Whitney—I had a case similar to that which Mr. Taylor speaks of. It was an extremely strong colony; had three section cases on, and I had no idea they were preparing to swarm. I went over to see them one morning about 9 o'clock; they were just coming back to the hive. I examined them and I found that they had 3 section-cases full of honey. I raised up the lower one, put two others under (and took two off) and did nothing more. They didn't swarm out again. The old queens went back in the hive all right.

Some one wanted to know how I prevented them swarming again. I just gave them "a good talking to!" I told them they were making a good record, and it was a shame for them to spoil it in that sort of way, and they never swarmed again!

Mr. Wilcox—Did you look to see if they had any queen-cells?

Mr. Whitney—I didn't look into the hive at all. I got from that colony seven cases of honey that summer.

Mr. Wilcox—In almost every case where the queen was put back and stayed contented, they swarmed on account of excessive heat. Of course, putting them back. I ventilated them by the operation so that they were contented, and hot weather ceased, and they went on with their work. I would expect, if you put the old queen back, when the swarm issues they would come out again.

Mr. Macklin—I would like to ask Mr. Miller one question: Suppose you have some colonies that have swarmed, and you didn't want any more increase; you have a swarm come off, and put that in the colony that swarmed within 8 days of the time that it cast its prime swarm; put the new swarm in

that—what is left of the old colony? Will that new swarm in there take care of the queen-cells and prevent after swarming?

Dr. Miller—I don't know. If I studied on it a while I might make a guess.

Mr. Hatch—I have done it a great many times; it generally cleaned out all the queen-cells and stayed there, and I got a full crop of honey from that colony where otherwise it would not get enough honey to build up on.

The convention then adjourned to meet at 7:30 p. m.

## FIRST DAY—EVENING SESSION.

### Per Cent of Beeswax in Propolis.

"What percentage of beeswax is in the propolis which is scraped from sections?"

Mr. Taylor—I have taken it out, but I cannot give you exact ounces.

Pres. York—What would you guess?

Mr. Taylor—Probably a pound of wax to a thousand pounds of honey.

Pres. York—Not very much beeswax, then, in propolis?

Mr. Taylor—Not very much; but then by scraping you can soon get out what wax there is.

Mr. Howard—I came to the conclusion, after trying it, that there was nearly one-quarter down in our section. I was astonished.

Mr. Taylor—It depends somewhat on the flow of honey. If it flows fast the bees don't get so much propolis, and they put in more wax in place of propolis.

Mr. Schlader—How would you separate the wax from the propolis?

Mr. Taylor—Put it in water and boil it, and it separates itself. The propolis sinks to the bottom and the wax rises to the top.

Mr. Whitney—Does not the amount of propolis in the wax depend upon the season of the year when you do the scraping? If done in the fall there would be a great deal more.

Mr. Taylor—It depends upon the season of the year when the honey is stored.

Mr. Hatch—Depends on the location of the bees, too. There are two or three things to consider.

Mr. Macklin—Do you get enough to make it pay?

Mr. Taylor—Yes. It doesn't cost



anything. Put it in a boiler and heat it, and the wax is on top.

Mr. Wheeler—What do you burn while you are heating it, wood?

Mr. Taylor—Burn gasoline if you have a gasoline stove.

Mr. Hatch—Burn up more gasoline than your wax is worth. You can take the propolis and burn that.

Mr. Taylor—Makes good firewood, too. If you want to hunt bear, you can take some of it and set it out in the woods and set fire to it, and the bear will come there.

#### Providing for a Honey-Dearth.

"How shall we provide for the honey-dearth which invariably comes in Northern Illinois; by larger hives, by removing honey in early spring and returning later, or by feeding?"

Mr. Taylor—Have enough honey in the hive the previous fall.

Mr. Howard—Will an 8-frame hive furnish it?

Mrs. Holbrook—It will not.

Mr. Taylor—Depends on whether they have them full of honey or not.

Mr. Schlader—I started 3 colonies a year ago this fall with 85 inches of honey, going across the frame that is, a full frame would furnish 16 inches; going down one side and down the other would be 85 inches. They came out in the spring with 35 inches left.

Mr. Stewart—How much did it weigh?

Mr. Schlader—Probably about 2½ inches to a pound. That would be nearly 35 pounds.

Mr. Taylor—When they went in?

Mr. Schlader—Yes. And they came out in the spring, about the first of March, having about 35 inches left. That would be, probably, 15 or 16 pounds left—a little less than 15 pounds.

Mr. Wilcox—How long after they were taken out of winter confinement were they weighed or estimated?

Mr. Schlader—They were wintered outdoors, and they were estimated as soon as the hive could be opened, which was, I believe, the first week in March. But, another thing, the bees used up every bit of that honey before they got new honey, after the first of March.

#### Italians for Central Illinois.

"Have we not a better race of bees for Central Illinois than the Italians?"

Mr. Whitney—Let me inquire, why limit it to Central Illinois?

Pres. York—That is the question. I don't know why. Probably, the person who asked it is from Central Illinois.

Mr. Howard—Because the conditions are different in Central Illinois than in some other parts. Take, for instance, New York State, with a short, sharp, abundant honey-flow; and Illinois, with a long-drawn out honey-flow, reaching on into September.

Mr. Whitney—I am partial to the 3-banded Italian bee. I don't believe there is any better bee to be found anywhere for the locality.

Mr. Taylor—I don't agree with that.

Mr. Howard—I don't, either.

Mr. Taylor—Give me the hybrid every time. Hardly anybody to agree with me; but I am satisfied that my hybrids are better than any Italians. They don't sting so much, for one thing. They go into the sections ever so much better; store just as much honey.

Mr. Moore—Dr. Miller produces probably the biggest crops that anybody could have produced with his conditions, and has had uniformly the hybrids, has he not?

Mr. Taylor—Yes. They are different hybrids from mine, because I don't have to tie up my pantaloons legs, as Dr. Miller does!

Mr. Whitney—Don't you use the leather-colored Italians?

Mr. Taylor—No; mine are hybrids, the blacker the better.

Mr. Whitney—You can keep them!

Mr. Stewart—Don't they get blacker every year?

Mr. Taylor—I suppose they do.

Mr. Stewart—Then they are the stronger race of bees, six to two.

Mr. Taylor—You can't get the Italian out of a case of sections nearly so easily as you can the hybrids. If you want to get them off, you have to pick every one off by itself—stick to it like burrs.

Mr. Whitney—They do stick to the comb, that is true, pretty well but I never found any trouble to take a frame out and give it a little shake in front of the hive, or take a smooth

brush and brush them right off it in less time than I can tell it.

Mr. Bruner—My experience is that they don't stick to the combs. If you want to find a queen you will have to do some hunting. The queen will be on the bottom-board.

Mr. Taylor—You want to take a different way to find her. I can find two queens to your one with Italians.

Mr. Hatch—Tell us how you do that, Mr. Taylor.

Mr. Taylor—Put a honey-board on the hive, and a super of some kind on top. Smoke into the front of the hive, and tap on it with one hand and smoke with the other, and in two or three minutes—previous to that you have the honey-board loose—you take off the super and tip up the honey-board, and the queen will be on the honey-board.

Mr. Hatch—You mean the queen-excluding honey-board?

Mr. Taylor—Yes.

Mr. Hatch—I have tried this tapping on the hive, and the bees generally tap on me!

Mr. Taylor—You have Italians?

Mr. Hatch—No; hybrids.

Mr. Bruner—There is a difference in hybrids, certainly. I have hybrids that will do the tapping, and hybrids that won't do it. They are gentle enough. They are scared to death when you come near them with a little smoke, and that is the worst trouble so far as handling them is concerned. You have to get out and chase them with a dog, sometimes, to round them up.

Mr. Taylor—My dog won't chase them.

Mr. Moore—Chasing is the other way.

#### Getting Pollen Out of Extracted Honey.

'How can you get the pollen out of extracted honey?'

Mr. Hatch—Let it settle and skim it.

Mr. Kannenberg—Don't pollen dissolve in the honey? I think it does.

Mr. Taylor—It doesn't dissolve. It breaks up, of course, but it doesn't dissolve.

Mr. Kannenberg—I think it does.

Mr. Moore—I have an opinion on that, but I have nothing to back it up. I see in the reports of the Pure Food Commissioners that one of the tests of pure honey is that pollen is always found in it. I judge that it is like a

good many other things—part is soluble, and some of it is not soluble. That is my guess, that some of it is soluble in the honey.

Mr. Taylor—I don't think it is soluble in the proper sense of that term.

Mr. Kannenberg—I extracted some honey and there was a lot of pollen in it. The bees got in the supers and had their pollen all up in the extracting supers, and when I extracted it the pollen went out with it, and was as soft as the honey, and melted the same as if it was honey, and it was black, and if you smelled it, it smelt as if you had pollen altogether, instead of extracted honey. You couldn't see any pollen; it was all dissolved.

Mr. Gruner—Pollen is a pretty broad term. It covers practically every different kind of plant, and its character, etc., vary with different plants. You are covering a broad field. Some of it is very tender. It will dissolve and go to pieces in honey. There are other kinds of pollen that certainly would not.

Mr. Taylor—Isn't it a fact that a man with a microscope can tell what plant the pollen comes from that is in the honey?

Mr. Bruner—Almost to a certainty, if he is posted on pollen and its different forms. But there are thousands and hundreds of thousands of different kinds. Those found in honey would be known to a man who had given it a little study.

Mr. Taylor—That shows it doesn't dissolve.

Mr. Bruner—It would show so far as those you found undissolved were concerned. I doubt very much if it would dissolve in most cases.

Mr. Hatch—I would suggest that sometimes pollen ferments itself, and it might be the result of fermentation in this case. Otherwise, I don't think a few particles would come out if packed in very solidly.

#### Hiving Swarms.

"Where of necessity hives must be placed close together, how can the bees returning from a swarm be hived in the hive in which they belong? Queens are clipped."

Mr. Hatch—I would cover the hives on each side with a cloth. That is the way I do it.

Mr. Wilcox—I sometimes lay a wide board between two hives, extending out a foot or two. That creates a separation. At other times I turn one hive facing the other way—in the opposite direction—then there is no difficulty.

Mr. Taylor—It depends some on how the swarm comes back, or is put back. If they return voluntarily, they come in a swarm, and, the best you can do, some of them are apt to go into the neighboring hives; but if they have become caught in a basket, by a little action you can easily get them into the right hives.

Mr. Macklin—If the queens are clipped, they will very seldom cluster.

Mr. Taylor—When I used to clip queens (which I don't do now), some years they would all cluster, and some years hardly any of them would cluster.

Mr. Wilcox—Spread a sheet over the hive while they are returning.

Mr. Macklin—Suppose you have 5 swarms coming off all at once?

Mr. Wilcox—You can have 5 sheets.

Mr. Macklin—You can't be in 5 places at once.

Mr. Wilcox—I have had 8 or 10 at once, and had to separate them; I have had them all alight in a bunch, and had to separate them.

The secretary then read the paper by Mr. E. B. Tyrrell, of Detroit, on

#### **"How Bee-Keepers Can Help Each Other."**

There are a great many ways in which bee-keepers can help each other, but I have in mind at present three which I consider of much importance: First, by Encouragement; Second, by Instruction, and Third, by Organization.

Taking the first under consideration, let me say that this applies more especially to the young bee-keeper who is taking up the business as a vocation. Well can I remember in my early days of bee-keeping, when I would scan the bee papers for articles of encouragement, and with what relish I would consume such an article, when found. How many times, though, was I discouraged by reading articles, and editorials too, that placed bee-keeping in the "side issue" class. We were told that it was too uncertain. Writers seemed to think that it was

their duty to flaunt continually the red flag of danger.

I am frank to say that I do not look with favor upon methods of that kind. There are already too many "Doubting Thomases" in the world to-day. We meet the obstacles in our business soon enough. When we find ourselves in the spring with dead bees we don't need the fellow who said, "I told you so," but we welcome the one who says "That's nothing; that's one of the obstacles in the business to learn to overcome. Just make those old combs into wax, buy some more bees, and start again."

So help your fellow bee-keeper by encouragement. Remember that what the average man needs is confidence. We can generally do what we think we can. The fellow who stands in the road yelling that a thing can't be done, is generally knocked over by the other fellow doing it, simply because he didn't know that it couldn't be done.

There are many men to-day who are making bee-keeping their life work. A few years ago we would have thought this impossible. We do not read so many discouraging articles as formerly, and for that reason a bee-keeper has a better chance to succeed.

Second, we have Instruction. Did you ever meet that bee-keeper who was afraid to give you some instruction because you might be his competitor? And did you stop to think what a narrow view that fellow took?

It is a universal law that the more we give the more we receive. How much better for us to tell our fellow bee-keepers the kinks we have learned, and get from him what he has learned. In this way we are both the gainers.

How unwise for us to withhold from the new man instruction which will help him get the best product, put it in the best selling condition, and help him get the best price. By doing this we have placed him under obligations to us, and he will be slow to spoil our market by lower prices, or poor goods. Help the man and he is your friend. Refuse help and he is not so particular whether he injures you or not.

So help your fellow bee-keeper by instruction. Both of you will gain, but the instructor will gain the most. You can not teach unless you learn. It will demand analysis of your methods. You will learn your weak methods, and you will see those pet methods of

yours worked out by your pupil from an entirely different angle, and you are apt to be surprised by the results.

Last, but by no means least, comes Organization. This is the one thing most needed by bee-keepers to-day. True, we have many bee-keepers' organizations, but the whole system needs re-adjustment. I hope that each one present read your worthy President's Address to the National. It contained some thoughts worthy of earnest consideration. Bee-keepers' associations of this Nation should be united. Why have two or three associations in Illinois? Why not have one only, and then have meetings in different parts of the State, if necessary?

Let us carry this idea still farther. Let us have all the different associations of this country united in one grand whole. Let us have the State Associations branches, or divisions, and not a separate association as at present.

This plan would enable these united associations to have an office established, with a man in charge. This man could get reports from members all over the country, and from these reports an accurate estimate of the honey yield could be drawn. This information could then be sent out to the members. Markets could be looked up, and a proper distribution of honey made. Selling plans could be tried out and reported on, and many other things could be done.

I believe the time is not far distant when the marketing of honey will be practically directed through organization. Steps are already being taken along this line by some of the State Associations, and it is only a question of time when the attempt will be national in character.

E. B. TYRRELL.

Detroit, Michigan.

Pres. York—Mr. Tyrrell is the Secretary of the Michigan State Association. This paper is before you for any remarks you may wish to make on it.

Mr. Taylor—One trouble is they won't take our instruction. I have tried to instruct Dr. Miller in two or three things, and he always kicks. (Laughter).

Pres. York—If you don't at first succeed, try, try again, I suppose!

Mr. Whitney—I have no criticism

to make on the paper, excepting where it speaks of when the bees have died in the spring, he advises rendering the wax. I would not render any combs into wax unless they were worthless for use. I would keep them, save them for future use. I suppose he would do the same thing.

Mr. Fuller—Does the statement of Mr. Whitney refer to foul broody combs, as well as others?

Mr. Whitney—I speak of those where the bees happen to die a natural death during the winter. I mean, if combs are good, do not render them into wax simply because the bees have died.

Mr. Wilcox—It might be interesting to ask Mr. Whitney what he would call "good." What per cent or portion of them should be serviceable to be good? Some are damaged slightly, some more, and some largely damaged.

Mr. Whitney—Damaged in what way?

Mr. Wilcox—By mice, by moth or mold.

Mr. Whitney—If there is any damage of that kind, and they become worthless, use them to the best advantage and make them into wax. I am speaking of combs which are otherwise all right except that the bees have died. Sometimes in the spring we find good combs but the cells are just full of dead bees. Some think those combs are worthless, but they are not. You put those combs into a hive, and the bees will clean them up nicely in a very short time, and these combs are worth money to keep.

#### Difference in Prices of Honey.

"Why is there such a difference between the price the bee-keeper gets for his honey and the price the city consumer pays?"

Mr. Stewart—Look up on the wall; you can see it there. (Indicating Crane chart.)

Pres. York—Mr. Burnett is with us. Maybe he can help us a little on that. He represents the city end of it.

Mr. Burnett—I think it is hardly fair to call on me, a greenhorn in here, on this subject. You would all like to know all about it; I am sure of that. I wish I could tell you; but I suppose the fellow that handles the honey for the producer consumes about as much in general ways as the producer does, and his wants or necessities are being sup-

plied; while there is still another man who has to dole it out in a smaller quantity, and he finds himself in a like predicament. If the producer is spared the time of marketing his honey, and seeks to do it through some other sources, he must necessarily pay for that privilege. I don't know that there is any objection to the man who sells honey between the producer and the consumer telling whom he sells the goods to, with this exception—the producer would not need him next year, or next time he has honey to sell, and that law which is universal comes into play, which is that the dealer must protect his own interests. The producer does so as far as he can, and the consumer buys just as cheap as he can. Now, he may have a friend in business who sells honey for 25 cents a pound, but there is a man a little way from him that sells it for 22 cents. He would like to deal with a fellow who is a member of his church and lodge, and so on, but the fellow who sells it the cheapest sells the honey. I see Mr. Wheeler here, and I know that he knows a great deal more about this business than I do, and he can tell just how it is done, because he comes in between me and that other fellow.

Mr. Wheeler—I have not been listening; I have been thinking about something else.

Mr. Burnett—I am very sorry that my remarks were so quieting. But he will know.

Mr. Wheeler—I don't know.

Mr. Smith—I think I stated today that I thought when honey sold for 40 cents, the producer ought to get 20 cents out of that, and I think a good many thought I was making a wild statement, that it was not nearly enough for the producer. The retailer must pay big rent in a city like Chicago; he must deliver that section of honey or the pound of honey that the customer orders, and he must deliver it at the back door of the house. He must heat his room where he keeps his store; he must pay the clerks, the bookkeeper, the cashier; and by the time that he gets through, I believe you will find that the producer, at 8 cents a pound, in a good year, makes more clear profit on that honey than the retailer does, after he pays the wholesaler a profit, pays the railroad company a profit—the railroad has some-

thing on it; then the commission man has to have something; the man who hauls the honey from the commission house to the retailer's store has to have something on it; and the retailer has to pay his rent and deliver it. So, I say, I don't believe you will find anywhere, except on a few articles they advertise specially to draw trade in the large cities, but what the producer gets less than half. I believe Alexander, the great New York producer, stated he could produce extracted honey at a cent a pound. He sold it at 7 cents. That is several hundred per cent profit. No retailer ever made that. No jobber ever made that. I don't believe it could be produced in this part of the country for a cent a pound. But there is more work to the honey after it leaves the extractor than there is before it goes to the extractor, if you consider the time it takes to get it to the back door in the city, and I am speaking of the city, not where the housewife goes to the grocery and buys the honey and takes it home. All the goods are delivered in the city, sometimes 6 miles from where you buy them. You can go to the Fair Store, or Siegel & Cooper's, order a cake of honey, and they will deliver it at Hyde Park or Englewood.

A member—Or Ravenswood.

Mr. Smith—Yes. And I don't believe they are making any more off it for the time they put in than the bee-keeper is. I believe if the bee-keepers want to get to the consumer through an organization, they get a warehouse somewhere, put a man there to take care of the honey, and build up a trade; keep samples there, keep a clerk there to sell it to any one who may call, and to those who want it in large quantities, and they can make more than they do now. If you get the housewife to come and buy a gallon of honey and carry it home, you have to make it cheaper than her retail man does, because very often she will call up her retailer and have it sent. The retailer is a convenience that is worth money to every one in the city.

Pres. York—It was said this morning that we have too many middlemen in this city. Mr. Burnett is one of the middlemen, and we have heard from him. Mr. Moore is a middleman too, and we would like to hear from him.



Mr. Moore—I am intensely interested. I have been selling honey 25 years. I tell you it is a false way to sell honey, to sell it in pound packages, absolutely absurd. Here is a thing that sells for 10 cents, Uneda biscuit, a can of corn or peas. That is all right. But when you come to sell honey, that sells to only one-fourth of the people—I tell you, there are only 20 in 100 that ever have honey on their tables. Isn't that true, Mr. Burnett?

Mr. Burnett—I never counted them!

Mr. Moore—My experience is that not to exceed 20 out of 100 eat honey on their tables. You are putting honey in a ten cent package alongside of a package that is a staple, eaten three times a day. It is all wrong. I sell a 5 pound can and a 9-pound can only, and I won't be bothered with anything less. That is the answer, why it costs so much to market your honey, because of the enormous labor in selling it. There are hundreds of grocers who will tell you they never have honey on their shelves. They have to put capital into it, and unless they put brains into selling it, it won't sell at all, and other things sell themselves. I consider that table (referring to the Crane chart on the wall) misleading in several particulars. I have got quantities of it for a quarter of a cent a pound freight, and the leakage nobody would agree would be 25 per cent; that is, 2 cents, and the cost to produce it is 8 cents, which makes 25 per cent leakage. That is not anywhere near the fact. I consider you ought to reform this whole question. I think it is the height of absurdity to undertake to sell a 10-cent package of honey because the label and the bottle, etc., are altogether out of proportion to the quantity sold and the value of the goods.

Mr. Wheeler—How are you going to change these wholesale articles?

Mr. Wilcox—Would the fact that it is a fancy article or a luxury make a difference? If it were a staple article would it be cheaper?

Mr. Moore—If you could sell 10 or 20 times as much.

Mr. Wilcox—For the last two years or over, the price to the farmer is 20 cents for potatoes, but they are selling here for 80 cents to a dollar.

Why does not the same law apply to potatoes that does to honey? That must be a staple, for everybody eats potatoes. They are selling today for 20 cents at the farm station.

Mr. Hatch—I think Mr. Moore is on the right track. Educate the people up to take larger packages. I would not stop at less than a 10-pound package. I would not handle anything less than 10 pounds. I would pass them right up. I would not sell anything less than 10 pounds. If they didn't want it, I would tell them it was the smallest package I had. I am going further than that. I am getting to where I won't handle less than a 60-pound package. I handle a few pounds around home. I sold hardly anything but a few pounds around home in less than 60-pound packages. Mr. Moore is on the right track; and we are working against our own interest when we are cutting down the size of our packages in section honey and liquid honey. We want to go the other way.

Mr. Wheeler—You have to give people what they want. If you won't, some one else will.

Mr. Hatch—I should try to educate them.

Mr. Bruner—Perhaps that is one of the reasons why there is such a difference between the consumer and the producer. If we won't do it, some one else will do it, and he wants to be paid for it, that is all.

Mr. Burnett—That is something that I come in contact with, and I would like to say that Mr. Wheeler has answered it briefly and concisely after his own fashion. But it is very difficult in any line of business, so far as my knowledge extends, to draw any hard and fast lines. You have got to meet the necessities of the occasion. There are people who will buy it in 10-cent quantities who otherwise won't buy it at all, and Mr. Wheeler and others know this. They don't put it up in small packages because they want to do so; but they say: We cannot find a market for it; we will have to put it in this size package to sell it at all. If people really wanted it or had to have it, they would buy it in almost any kind of a package. I know that I have had to do so. When I wanted a thing I had to take it in the kind of package



I could get it in; and when a commodity is not a necessity—and honey will never be other than a luxury except to the few—people sometimes will use honey one 2 3, 4 and 5 years, and then cut it out for as many more; and that I know to be the fact that people use it for a time and get so they will have some in the house, and it stays there, gets out of the condition they want it, dust on it or candied, or something other than is inviting. People who eat honey, as a rule, are not people who must economize to the penny. They buy honey because they think it is something that will make a relish, something that will vary the table and be an inducement to eat a little more than they otherwise would. The man or the family who buys honey to avoid buying butter, buys it in the cheapest kind of package that it can be got in. These things are all met by Mr. Wheeler, Mr. Moore and others who peddle honey to the consumers or to the retail merchant, and then when they come into the market to get their supplies, they buy it in the package that is most convenient for them. The 60-pound package has come to be almost a universal package. It is something that an ordinary person can lift without a great deal of difficulty, and it is about as cheap a package as honey can be put up in. The fact is that the producer of honey has asked that the price of these tin 60-pound cans, so-called, be furnished him at a low price. The manufacturers have tried to do that. The result is that they have given them a much lighter tin, poorer soldering and poorer joints, and when they are filled with honey and jolted over a hundred or more miles of railway, or in wagons, they sometimes burst, and the honey is lost, probably the entire can, if it is in a liquid state. But it smears up everything it comes in contact with and does more damage than its own loss, and that is something that may not have been mentioned here, that the producer ought to see that the package he fills is a stout package, as stout as it can be of its kind; that is, that it is perfectly mechanized, that the solder is good, and that the joints are properly made.

Mr. Wilcox—In separate tin cans, don't you find that the wood itself is

to light or too frail to carry the weight that is put in them?

Mr. Burnett—Not generally, but occasionally we do. There have been some of those cases coming this last year or two—it has been more general lately. We hardly ever have California cans burst. The cases are good, and they use better cans.

Mr. Pritchard—Right here I want to give you a good point. It is more in the nailing than in the package. We have found packages nailed with small nails that were a lot of waste. But you take an 8-penny or a 6-penny nail for packages, and they will hardly ever break.

Mr. Whitney—Mr. Burnett speaks of honey as a luxury. That undoubtedly is considered to be true by the majority of people. Doesn't that argue that we ought to advertise honey in some way and get it before the masses of the people that it is a necessity, as well as butter and milk. Are there not some countries where the common people use honey freely, more so than they do butter?

Mrs. Holbrook—In Germany.

Mr. Whitney—If we believe that honey is a good thing for bread for children, instead of butter, I think that a pound of honey at 15 cents would go further than a pound of butter at 30, and would be a great deal better for children and ordinary families than butter, and after a while would be considered a necessity. I cannot understand why the people cannot be educated up to the feeling that honey is just as much a necessity as any other food.

Mr. Schlader—What about the idea of substituting honey for butter? That doesn't occur at home at all. My boys want butter if they have honey. They want something to keep it from sogging into the bread. I must confess I like butter with the honey myself; it adds flavor to it.

Mr. Whitney—That is very true among those who produce honey and butter too. But there are a lot of people who would use it in place of butter if it were properly placed before them, and especially if it was soft granulated, it would spread just like butter or ice cream.

Mr. Moore—I would like to hear from you. You have had very large experience in this honey question in all

sorts of forms. I believe the Association would like to hear from the President on this.

Pres. York—I was going to say something about the boxing of the 60 pound cans of honey. I know that the American Can Company use pretty light lumber for boxing their cans, and Mr. Burnett spoke about boxes from California being heavier and better nailed. The cans used to be shipped to California either flat or unboxed, and the boxes they make in California are better than the boxes they make here. I have heard that explained, and I think it is true, too. The American Can Company used to put up pretty poor boxes.

Mr. Burnett—The cans are now made better too.

A Member—I suppose it is the air of California!

Pres. York—Probably the climate helps. Mr. Moore wanted me to say something on the use of honey. We have it on our home table three times a day, and oftener if we eat oftener than that. I wish everybody did that, and I had the honey; I think I could sell lots of it. But I believe, as Mr. Whitney says, something could be done along the line of advertising. I have talked of that, and I have done it in my time, as well, but it takes money to advertise. If every bee-keeper will do his part in developing the home market—distributing leaflets telling about the use of honey—it is bound in time to have an effect. Mr. Hatch was saying this forenoon that he had disposed of something like 20,000 pounds of honey. Mr. Ahlers, who was here this morning, has sold something more than 40,000 pounds of extracted honey this year. Mr. France, of Wisconsin, disposes of from 20,000 to 30,000 pounds annually. His crop was something like 30,000 pounds this year. If every bee-keeper will sell as much as he can in his home market, he is bound to cultivate a market, and people who get it, and like it, will buy it year after year.

One reason why there is such a difference between the price the bee-keeper gets for his honey, and the consumer pays, is on account of the very small packages. When I was in the business and used glass jars, there was a great deal of labor in putting them up, three or four dozen in a case, and selling them to the grocers, and deliv-

ering them to the grocers. There is a lot of work connected with the bottling business, and it has to be paid for. You cannot get help for nothing, and a place to run the business for nothing; insurance costs something; and that all is bound to be added to the price of honey paid to the bee-keeper, and people must expect to pay more than the original price. I think, myself, that 24 cents a pound for extracted honey, as indicated by the chart on the wall, is altogether too high. I am sure it can be sold for considerably less than that, and a fair profit made. I think that from 18 to 20 cents would be high enough for a single pound through the grocery trade. I think there is money in it, but it has to be done on a fairly large scale, and when you talk of doing a business of 1,000 or 5,000 pounds, that is not worth mentioning; that is no business at all. You have to do it up into tens of thousands of pounds in order to make a business of it, and make it pay.

Mr. Burnett—You made reference to this card up here—the cost of honey. I am going to object to the cost of honey, 8 cents a pound. This is a local, not a national organization. Where do you manage to get a freight rate of a cent and three-quarters? Take the cent off for any member of this organization for freight. Bottle, 4¼ cents; how is that?

Mr. Moore—that is right, for a one-pound bottle.

Pres. York—About 3 or 3½ cents.

Mr. Burnett—I think about 3 cents in the quantities the ordinary one buys it. What does "selling" mean here?

Pres. York—That is Mr. Hatch's chart.

Mr. Hatch—That isn't my chart. I would like to explain that. It was made by Mr. Crane, who understands the business. That is his table. Mine is on the other side. When you get through with that, I will turn it around.

Mr. Burnett—I would like to know why selling comes in here, because later there is the jobber and retailer.

Mr. Hatch—That is selling to the jobber.

Mr. Burnett—That would be another freight charge?

Mr. Moore—Farmer's cost of selling probably.

Mr. Burnett—I suppose the farmer is producing it. That is a pretty

high price for the label. The jobber, 2 cents. Now, as a matter of fact, the jobbers, none of them charge over 10 per cent, and and the cost, with the freight and with that selling business there, comes to 10 cents. One cent would be all that he would get out of it, and we will cut that in the middle. The retailer—well, let that go without saying, and perhaps he needs that. Then leakage 2 cents. I think that 2 cents a pound is a pretty high rate of leakage. As a whole, on that, I should think that half of one per cent would be ample. Now that cuts that business there down quite a good deal. It takes it down to down to about 15 cents.

Pres. York—I will ask Mr. Hatch to make any further explanation he wishes on this side, and then to turn the chart over.

Mr. Hatch—It may be that Mr. Crane figured on putting those jars in a case; that would add something on selling to the jobber.

Mr. Burnett—We usually go on what it says.

Mr. Schlader—He may have figured that up all wrong but I find that is what it retails for.

Mr. Moore—How many tons is the production of this country; does anybody know? Ninety million population. Are there ninety million pounds of honey; does anybody know?

Pres. York—Does anybody know? Is it 45,000 tons, a pound apiece for the whole population?

Mr. Schlader—That is 90,000,000 pounds.

Mr. Moore—I want to tell you what is the matter with the city markets. Now, I am against Mr. York about this advertising proposition. I want to tell you why you don't sell your honey. I traveled over Indiana and Chicago. You know the Glucose Trust are selling thousands of millions of packages. Put your pound of honey at 20 cents. That is as low as you can get it to the consumer, pure honey in a glass. A quart jar would be 60 cents, that is 3 pounds. The Glucose Company sells a quart of Karo Corn Syrup for 10 cents, one-sixth the price of your honey. That is why your honey is not going to the people in the great cities and small cities. The Glucose Trust have spent tens of thousands

of dollars and sold four or five millions of packages of this Karo Corn Syrup with their pages of lying advertisements. "Better than honey for less money. A bee would leave the flowers and feed on Karo." That is why you are not selling your honey. The shelves groan with that glucose, and that is the trouble. Glucose is sold to all your neighbors within 5 and ten miles of your home. That is the solution of your troubles. When you are selling it to the cities in 60 pound packages, some other man has to put his time on it, like Mr. Wheeler, and sell it in 10-cent packages. The labor is out of proportion. You have the cart before the horse.

Pres. York—The chart is reversed. How does this side strike you, Mr. Burnett?

Mr. Burnett—I think he was just hiding that to see what I would say about it.

Mr. Hatch—I would like to say one word about this package business—the can. Now, Mr. Burnett accused the bee-keepers of demanding a cheaper package to their own detriment. I think he is in error in that. Those fellows that make the cans, the American Can Company, have been cutting down on their packages. This year they sent out boxes with  $\frac{5}{8}$  lumber for heads. Mind you, the heads were only  $\frac{5}{8}$ , and the grain ran around the package, having holes cut in it, and sometimes you would lift it up and the top of the package would lift off. What are you going to do with that? It is not our fault.

Mr. Burnett—You can't get any better.

Mr. Hatch—Not that I know of.

Mr. Burnett—They sent to the factory in California and said the package must weigh at least 15 pounds. The same in Arizona. We are so scattered all over creation you cannot buy them by the car-load. They buy them by the car-load, through their Association, and they insist that the package shall weigh, including the cans, 18 pounds, and that is the way they get good, strong packages.

Mr. Moore—Mr. Hutchinson, with his raspberry honey, was intensely anxious we should get in all the cans, and he bound them with iron, and that helps greatly.

Mr. Hatch—I wire mine; put two

wires around them and then cross-tie them.

Mr. Moore—Mr. Hutchinson uses hoop-iron around them.

Mr. Hatch—I put the wire clear around and tighten it up, putting in two pieces of wire on each side and drawing them up tight, and never had any loss that I know of.

Mr. Dadant—We have used boxes strapped a great deal that way. It goes right around each head of the box and holds all the wood together, and we ship to any distance with the box strapped around, where it would tear the box all to pieces without it.

Mr. Burnett—Do you use hoop-iron?

Mr. Dadant—Yes, only a little lighter.

Mr. Burnett—The hoop-iron answers, although it is quite a nuisance about opening them, and so on. Some complain a little of that.

Mr. Wheeler—When those cans start on the road, they scrape the bottoms of the wagons and tear people's hands.

Mr. Burnett—That is especially so with wiring. Wiring is worse than the hoop-iron. There are quite a number of objections to it.

Mr. Hatch—I don't think you get my idea, Mr. Burnett. Your idea is to put it around the end and nail it fast?

Mr. Burnett—Yes.

Mr. Hatch—No; it is not nailed at all.

Mr. Burnett—Your hoop is not inserted into the wood. It is outside of the wood, a thirty-second part of an inch above the wood.

Mr. Hatch—Get baling wire, such as they use for baling hay.

Mr. Burnett—That is about a thirty-second part of an inch above the wood, the best you can make of it.

Mr. Hatch—It is generally about 2 inches from the end. I don't see how it could bother at all.

Mr. Burnett—It bothers about transportation to other cases; it tears other cases, and it tears any vehicle that it goes into, and it is annoying on the warehouse floors, tears them up. It is really a serious objection. I think that out to be done where you ship beeswax, which is a commodity that breaks up a package. That ought to be hooped, or in a strong package, especially where it comes a long distance. But on honey, I think there will be a strong protest raised against wir-

ing or hooping the package before long.

Mr. Hatch—We had to do it because the packages were so frail that they would not stand.

Mr. Wheeler—We ought to insist on a better package, packages such as we had 30 years ago.

Mr. Burnett—We used to have no trouble when the case was sufficiently stout to contain the 125 or 130 pounds of cans and honey. The first thing they did about it was to dispense with the center board. That weakened the case one-half. Most of the California cases today have center boards—we very seldom have any trouble with them. I think, with the center board, you would need no wiring of the cases.

Mr. Hatch—The California cases are made of inch or  $\frac{7}{8}$  lumber, and when you cut that down to  $\frac{5}{8}$  and use a 6-penny nail or anything that will hold, you cannot do it.

Mr. Burnett—I do believe it is to the advantage of every producer, every handler of the goods, to have a center board case. The cans rub together; the moving of the car seems to rub, and scrapes the tin off each package, and I have often known it to work through. Each can wears the other out in transportation, especially where the tin is light, and with the center board that is obviated, and a case is certainly three times as strong with a center board as it is without. Then, if one end of the case gets injured, the other is not damaged, as a rule, at least not so much. The other part remains intact generally.

#### Extracted vs. Comb Honey.

"Will extracted honey supersede comb honey in time, or is extracted honey in the market beginning to displace comb honey?"

Mr. Wilcox—I think the dealers could answer that question better than the bee-keepers.

Pres. York—What do you think of it, Mr. Burnett; is the handling of extracted honey increasing?

Mr. Burnett—Yes; it is. Extracted honey in the last 10 years has gained on the sale of comb honey very largely, and I think that the fact that we have now for the last two or three years hardly seen a can of unripe honey on the market—that is, it has not come to me, and I have seen some other dealers—has had a great deal to do with

the increase of the sale of extracted honey. I think that I mentioned in this Association a quarter of a century ago, or nearly so, that the bee-keepers stood more in their own light with regard to the production of honey than anybody else, when it came to extracting it, and something less than that time ago there was a great furore among the bee-keepers about some man who could take off honey and get 200 or 300 pounds of honey to the colony, and they would get only 100 if they resorted to the old, ordinary method of leaving honey in the hives until it was sealed; and before we got through with it, and got soured on it, the people had all got soured on it, and we sold very little extracted honey. The fact is, and I know from our sales that we are selling to the consumers—that is, it goes to them from us; it goes to the middleman from us, and to them direct—certainly three times the quantity that we did three or four years ago. Now, as to comb honey, I don't know that it is going to interfere with comb honey. As long as extracted honey can be produced at about one-half the price of comb honey, it isn't going to interfere with it, for the reason that the producer, if he finds there is more money in extracting honey than there is in comb honey, it is a simple matter for him to produce extracted honey. Comb honey will, I think, keep its ratio very largely. It will sell, especially at wholesale, for 5 cents a pound more than extracted honey. Occasionally we get a preponderant supply of comb honey, and not quite enough of the extracted, and that ratio then does not hold.

Mr. Whitney—I would like to ask Mr. Burnett, isn't it a fact that the passage of the pure food laws had something to do with the popularity of extracted honey?

Mr. Burnett—I don't know that it did; but it helped everything that it came in touch with, I am sure.

The convention then adjourned to meet the following forenoon at 9:30 o'clock.

## SECOND DAY—MORNING SESSION.

Convention met at 10 a. m., Dec. 1, 1910.

Pres. York—We begin, this morning, with a paper from Mr. Aaron Coppin,

of Wenona, Ill., on the "Advantages of the Split Section." Mr. Coppin sent his foundation fastener, and a sample of honey as he produces it. These can be examined when we have a recess. We will have the Secretary read the paper:

### Advantages of the Split Section.

I am principally a comb honey producer, using the split section. The largest part of my honey is put up in shipping cases holding 24 sections each. These cases are shipped in small or large quantities to retail houses, none of which are crated to help protect the honey from rough knocks and careless handling it receives while being shipped.

I have never had a single complaint of my honey being broken, which is due to the section I use, and the way in which the foundation is fastened on all four sides.

For a number of years I tried to put full sheets of foundation in both the "split" and the one piece section, which almost proved to be a failure, for when the foundation was put in, there would be any amount of sections that were not perfectly square, but when placed in the supers and wedged up, it naturally gives the section a better shape, and, at the same time, causes the foundation to pucker or push out of place.

At last I have what I call the "split section." It is  $4\frac{1}{4}$  by 5 inches in size, and appears to hold a larger piece of honey than the  $4\frac{1}{4}$  by  $4\frac{1}{4}$ . It is a taller section, but only  $1\frac{1}{4}$  inches thick, so in reality the two styles hold the same amount of honey.

This split section fits the standard hive perfectly, there is no waste space in length, as there is with the 4 by 5 inch section.

As the split section is narrow, I put seven section holders in, making 28 sections instead of 24 in each super.

The section holder that I use has a top bar, which keeps the sections clean, thus saving much labor after being filled with honey.

I have planned an easy and quick method of putting full sheets of foundation in the split section, and the sections in the section holder at the same time.

First, I have a form or foundation fastening in which I place a section-

holder. I then place half of each of the four sections in the bottom of the form; having done this, I place a full sheet of foundation in the form on the four half-sections. This foundation is made to order, 5 by 17 inches, extra thin, then the last half of each section is placed on, pressing the foundation in firm between each section. It is then ready for the super.

By the time seven section-holders are placed in the super, and wedged tight together, the foundation is just about cut through by the half-sections.

I find that by furnishing the bees with plenty of this kind of sections, that it helps wonderfully to reduce the number of swarms.

By the time these sections are taken off the bees, the greater part of them are filled even, and without pop-holes, which grades No. 1 honey. When I make an exhibit of comb honey at the Illinois State Fair I can put up 500 sections that are filled perfectly, without one pop-hole.

Now every one may not have the same experience, nor success, with the "split-section" that I do, although it does not require a great amount of skilled labor to put the foundation in these sections and prepare them ready for the bees to store honey in.

Lots of bee-keepers are careless; some give the bees sections to fill before there is any honey in the field to gather.

By putting the sections on early, you will soon find any amount of holes that the bees have cut in the foundation. Now this is all unnecessary; if the bee-keepers would only put the sections on at the right time this would never occur.

I am sending a section of my honey and the foundation fastener with the "Split Section" and foundation, so you may see how simply it is all done.

A. COPPIN.

Wenona, Ill.

Pres. York—How many have used the split section? Mr. Wheeler has, I know. Are there any others? (Two.) How do you like it, Miss Candler?

Miss Candler—I didn't like it very well; I think in a good flow it would work nicely. My bees didn't work the honey out so evenly around the wood as that sample is. The foundation is apt to show around the wood, and in

the corners; probably the honey-flow has something to do with that. I could not make it come out square—the two parts. They would break through in the middle because they were not square. The least pressure that was put on them—they would come apart. Of course I didn't have any contrivance like that to square them.

Mr. Reynolds—What do you say about that? I have never had sections fill out as well as in split sections. I think they are better than the ordinary section.

Mr. Macklin—Do you use fences with them?

Mr. Reynolds—No, sir, I use separators.

Mr. Macklin—Just plain separators?

Mr. Reynolds—Yes.

Pres. York—Mr. Wheeler has had long experience with them, or used to have. Have you anything to say, for or against?

Mr. Wheeler—I don't think so; it is a toss up with me. There are some things about them that are favorable, and some that are unfavorable I don't use them myself any more. I used to. My daughters filled the sections with foundation, and they decided they didn't like it; that is one reason I don't use them. Another thing is as Miss Candler spoke of—the bees never put the honey to the edge of the wood, that is, as a rule; you can pick out nice sections, and some swarms seem to build out and others do not. If your foundation happened to be on during a dearth there would be holes made through them. I don't think they are very satisfactory.

If you get the section filled out full, it is not exactly true and square when you press them in the shipping-case; you will press one of the halves a little bit and make it come down square with the others, and that will crack the honey and start it to leaking. There are a lot of things like that about them. They are nice in theory. I thought it was my own idea; I wonder if Mr. Coppin got anything of the kind from me. I might have sent my honey somewhere where he saw it, or I might have seen him at the time I thought I invented it; I didn't know of any one else in the country using it.

Pres. York—Have you any objection to the foundation showing between the halves of the section?



Mr. Wheeler—It would be objectionable on the Chicago market. You have to meet keen competition here.

Mr. Wilcox—Is there any other objection on account of so many pieces to handle?

Mr. Wheeler—Just about as much work.

Pres. York—It would be double the folding, would it not?

Mr. Wheeler—Yes; and it costs more to get the sections made. It is surprising, where you fill out to the corners like that, how much more foundation it takes. You have to let it stick up above; if you let it come down even it would sag, and as soon as the bees get a chance to stick their heads up over the top of the foundation they begin gnawing it.

Pres. York—I don't suppose the comb foundation makers would object to your using so much foundation!

Mr. Wheeler—You will have to ask them about that. We have one here, and he says, "Hurrah! for the split section!"

Mr. Taylor—That paper says that he got 500 sections with no pop-holes; if that is all he got, what were the rest?

Pres. York—He refers to the exhibit he had at the State Fair, he probably had more than 500 from his whole crop.

Mr. Wilcox—About  $1\frac{1}{4}$  sections—how many think it advisable to have them as narrow as that? I would like to ask this question, Is it, or is it not, advisable to have them as narrow as that?

Pres. York—How many think it is? (One.)

Mr. Taylor—What is the difference in the width of a plain section and one that is not plain? Now that is evidently the thickness of the upper and lower part of an ordinary section; the other part would be  $\frac{3}{8}$  wider, which would make  $1\frac{7}{8}$  section.

Mr. Hatch—You have  $\frac{1}{2}$  to  $\frac{3}{8}$  on each side.

Mr. Taylor—It would be  $\frac{3}{8}$  inch larger for a whole section than that, which would make  $\frac{3}{8}$  and 2-8 of  $\frac{5}{8}$ ,  $1\frac{5}{8}$  section.

Mr. Hatch—That is 7-to-the-foot.

Mr. Taylor—That is a little more than 7-to-the-foot; a scant  $1\frac{1}{4}$  is 7-to-the-foot; it takes just scant  $1\frac{1}{4}$  to make 7-to-the-foot.

Mr. Hatch—In theory it does, but in practice you can't have it.

Mr. Taylor—I do. You will find mine are 1 inch and just scant  $\frac{3}{4}$ .

Mr. Hatch—I find in rainy and damp weather the sections swell.

Mr. Smith—I am not an expert enough to know all of the intricacies about the different sections but I visited the State Fair at Springfield and examined the honey exhibit by Mr. Coppin, and it was marvelous to see the work that he had produced. He had hundreds of sections without a single defect, such as you see here—almost as smooth as a board that had been planed. It showed that he took an immense amount of pains with his work. I don't believe it would be at all exaggerating to say that if a dealer in Chicago could be sure that he could get 5,000 such sections of honey as Mr. Coppin produced he could afford to pay 30 cents a piece for them.

Mr. Taylor—But would he?

Mr. Smith—He would—yes.

Mr. Taylor—I never found them.

Mr. Smith—To justify such a price as that you must be able to deliver the goods when they are called for. There are homes in this city where they would pay 50 cents for a perfect section of honey to put on the table. A man will pay \$500 a month for a place to live in because it is just what he desires and that same man will certainly pay a little extra for honey that he wants to use on his table if he can find it in perfect condition, and there are many men just like this one. They will go to the market and pay five and six prices for apples because of their appearance; they pay more for nearly everything, there is a large class of people who will do that.

I would not hesitate, myself, to contract today for 5,000 sections of honey such as Mr. Coppin showed at the Fair, if I could get them, at 25 cents a section; but I would want to be assured that I will have those sections, and that they will be just as good. That section (one on table) would not come up to the average that he showed at the Fair grounds.

Now, whether it is because of its being a split section or not, I don't know, but I do know that the quality is there, and it has the appearance that will bring the price.

Mr. Taylor—I think I know why it is well filled. It is not the skill of the man, nor is it the skill of the bees, but

it is the crop of honey that is coming in. You take an ordinary crop of honey, and there would be places around that—unless the bees are different from mine—when they would not fill it out to the wood. They would eat the foundation out. You have to have a good honey flow to get sections of that kind.

Mr. Smith—He is the only man that produced those results. Why should we not attribute it to the sections?

Mr. Hatch—It is a very easy matter to pick out 500 sections to take to a Fair. Mr. Taylor can do that; Miss Candler can; I can pick them out; it is the "average" that we want.

Mr. Wheeler—There is nothing much to that. I don't think that is anything to judge from. A man going to a State Fair to exhibit honey, could pick out enough perfect sections to make a good exhibit, but the question is, How many has he like that? and how would the whole crop size up? I know it is a big thing. I will tell you what I have done sometimes: I have taken a box of honey with that split section to the market; the jolting of the wagon would oftentimes shove those two pieces apart; the bees will have that section of honey full, and when I get to market the wood will be loose in the section. That wood works away from the foundation—sometimes; it is not always so. You have all sorts of peculiar troubles; you cannot depend on things; you cannot depend on the crop; you might have a good flow of honey, but you take the average crop, and the bees will not fill out to the wood—unless it is an extra fine season.

Mr. Taylor—Some of you here will probably remember the honey I brought here—two years ago, I think it was. I brought the case just as it came off the hive, just as well filled as that. I think our President can recall the crop of honey produced in McHenry County a couple of years ago.

Pres. York—Mr. Coppin seems to get enough for the Fair exhibit every year. He makes the best of any comb honey exhibit there every year; I don't know how his crop would run; I wish he were here to tell us all about it.

Mr. Taylor—I don't think the sections have anything to do with it; it is the crop; what would the bees care about a split section!

Mr. Anderson—The  $4\frac{1}{4} \times 4\frac{1}{2}$  sections I use regularly, and up to the 10th

of last July our honey in McHenry County was almost perfect. I have some of my first honey left; I don't know but that it is as good as that. I have perhaps a couple hundred pounds out of 4,000 left that is just as fine honey, apparently, as that section is, take it as it runs; but from that time on we didn't get any honey you might call good. It was light sections all round. It is simply the season, and the amount of honey that is going in, that makes the honey in that shape, and the strength of your colony.

Mr. Hatch—A few men I got honey of the past summer use nothing but a little bit of starter at the top of the section. It is surprising how some of the bees would build their honey sealed like that. One man is a crank; he thinks it is adulteration to put in foundation, and his crop of honey was filled out in good shape. I could easily pick out 500 sections out of his as good as that.

Mr. Anderson—There is another thing I tried last year, putting in full sheets and also starters. I take a strip of foundation and cut it into ten pieces, and for the top starter I cut it into 25; that is what I usually put in. I took those sections and some I filled full—some I filled the super half and half, and before the 10th of July I could not see any difference in the honey that was taken off; one was just as good as the other. It was all imperfect after that.

Mr. Taylor—All of it was not imperfect?

Mr. Anderson—Yes, a large majority of it; honey came in very slow, if at all, after the 10th of July, at that time.

Miss Mathilde Candler, of Cassville, Wis., next read the following paper:

### Bee-Keeping for Women.

The avenues of labor and profit for women have been thrown open to such an extent within the last 30 or 40 years that they embrace nearly every occupation to which men have access. There are women lawyers, doctors, dentists, architects, bankers, farmers. I have even read of a woman blacksmith.

The field of endeavor is limited only by her individual, real capability and desire to do the world's work.

Among the occupations in which women may be successful is bee-keep-

ing. It offers some advantages to her that many others do not possess.

First, a large capital is not required to begin with. Indeed, it is best to begin small and go slowly; a few colonies of bees, extra hives and supers, a bee-veil, gloves and smoker, are all that is needed.

Of, course, there are a whole lot of traps and contrivances that she can buy if she wants to get rid of her money, and the inexperienced apiarist always does buy a whole lot of stuff that is discarded later on. The above is really all that is necessary.

There is a great deal of work connected with an apiary. It is a business of details. I have received numerous inquiries regarding bee-keeping for women, and most of them seem to think it a business giving big returns with little labor. That is not exactly the case. There is some money to be made, to be sure, if carried on on a sufficiently extensive scale—even a small competence, perhaps. But it would require all a woman's time and energy.

While I believe most women would do better at something else, yet, as there are all sorts of women with all sorts of tastes, there will be some to whom bee-work would be congenial, and these would find it fascinating, and would probably make a success of it.

But the woman who thinks there is little work connected with it will fail, as will the woman who does not do the right work at the right time; or the man either.

To secure a little pin money, or to get the fresh air and exercise that some women need, bee-keeping on not too large a scale is excellent.

Of course, if she has a good helper she can keep more bees at a profit; but I am writing from the standpoint of the woman who is largely dependent upon her own resources and labor for her success, and I believe that the average woman, under such circumstances, would make a failure of extensive bee-keeping. Perhaps the average man would, too; I don't know.

One thing I like about bee-keeping as a business for women is that we get "equal pay for equal labor." We do not get less money for our work just because we are women, and are

not made to feel that we are belittling our occupation in competing with men.

And in the good time coming, when bee-keepers shall co-operate together instead of competing with each other, the business end of bee-keeping will be much more simplified for us, and more profitable, too, I hope.

MATHILDE CANDLER.

Cassville, Wis.

Pres. York—We have not very many women in our convention today—not as many as yesterday. There are two or three here, I think Mrs. Holbrook has had quite a little experience with bees. We would like to know if she agrees with what Miss Candler has said, and will add anything to it.

Mrs. Holbrook—I can sanction one point. There is a great deal of work, and it requires a great deal of attention. My experience in the past, in other lines of work, is that it demands the same attention. If we succeed in anything it requires constant thought, and deep thought—your best time—your best energy, and a love for it—at least a deep interest—enough love for it to keep a deep interest in it, and enough self-respect to impel you to give out, and to get in, all that is possible and I am so thankful from mouth to mouth for the good thought we get in the bee-paper articles. That is the secret of our success.

We would be very slow in accomplishing a knowledge of, and in mastering, bee-culture if we had to depend upon our experience; it would be an expensive occupation, but if we can have the patience to wait until the bee-paper has come, we are sure to find some article that will meet the need of that very hour, perhaps. I have many a time picked up my bee-paper and found an article which answered the very question that I was so much wanting to know. Now this is a blessing which I feel that we sometimes don't appreciate.

Then, again, we must believe—we must first strive to get a proper article of honey—believe that we have it, and then appreciate it enough to command a price which we know it is worth; if you don't believe in it yourself, you cannot expect any one else to believe that you have a good article. No one is going to give any more than you ask.

I will say this (perhaps it does not sound just right): I believe that the amateur bee-keeper comes here with more nerve than he goes away with. Some of you older bee-keepers do not believe sufficiently in your honey to demand the price which that article is worth to produce it. We amateurs strive to get the best article possible, and we try to get the people to appreciate that article; appreciate the effort we have put forth to get the best article possible, and get them to feel that we must pay the price which it has cost to produce that good article. If you believe in that, and stick to it, you will not be talking 7 to 9 cents a pound for honey! No pound of honey should be put on the market for less than 14 cents; from that to 20 cents, according to the way you sell it, and you can get it if you ask it, and the people, when you tell them what it has cost, will agree with you that you should get a proper price for it.

If we will spend a little more money in the spring to protect our bees and get them strong for the honey-flow, we can produce the honey; then we can tell our customers what it has cost us to produce that; the effort we have made, and they at once agree with us.

While I do not produce 40,000 pounds of honey—if I produce 4,000 to 6,000 pounds—I have just as good a right to stand for the price of that honey as though it were 40,000 to 60,000 pounds. While you may produce 40,000 pounds, you have just as good a right to stand for the price which that honey is worth, as I have for the 4,000 or 6,000 pounds.

I didn't intend to say this, but you have it now.

Mr. Taylor—I want to add just a word to what has been said about asking a price for the honey. The only reason our honey is low-priced is because we ask a low price.

The officers of our Michigan State Association get together here in the fall sometime (I don't know by what authority—they must have created the authority themselves) they got out a little book advertising the producers of honey, they ventured to fix a price, well, they said, 14 cents for the best quality of honey, and a lower price for grades not so good. I have felt indignant ever since I saw that statement. What is the use of fixing the price of honey at

14 cents? And there is no reason why the officers of the State Association should fix a price at that figure. I insisted on 16 cents and got it, and there is no question at all but what a great many bee-keepers in Michigan sold their honey for 14 cents simply because the officers of the State Association named that figure. We need not grumble about the price of honey unless we ask a better price.

Mrs. Holbrook—I have not sold a pound of honey to the retail trade for less than 20 cents when it is less than 5 pounds, either comb or extracted. I have not sold a pound for less than 14 cents when I have sold it at wholesale prices—two 60-pound cans; and no one has complained, and more than that, the same customers are taking more this year than they did last year. Now put that in your bonnet and think about it, and don't come here next year and talk 7 to 9 cents a pound for honey. We have to rise above that; it takes our nerve to come here and hear this. We study this thing out as to how we can rise to the point of asking what a thing is worth, and ask it, and get it in a small way; and then out comes the bee-paper with "adds" for 60-pound cans of honey at 10 cents a pound. And then we come here and talk for 9 and 10 cents a pound. You see it takes the nerve out of these amateurs.

Pres. York—I would like to ask Mrs. Holbrook—have you been speaking about extracted honey?

Mrs. Holbrook—Yes, I had in mind extracted honey.

For comb honey, we get what we think that is worth, from 20 to 24 or 25 cents for the A1 fancy, or take a little off where they would take 11 sections; give them one extra section; where they take 6 sections, give them the price of the half section. They don't hesitate to keep sending for more.

I believe we must first think what a thing is worth. People never object to paying 20 to 25 cents for butterine—and think of the difference in the cost of the production of a pound of butterine, and a pound of honey. Then think of the difference in the value of a pound of honey and the value of a pound of butterine. And then take 7 to 9 cents a pound for honey! It is ridiculous! And it is not placing the value upon that honey to which it is entitled.

Mr. Whitney—On going to my room last evening I got to thinking over the line of thought of yesterday in regard to the price of honey. It occurred to me that the trend was all towards a lower price by those who are handling large quantities of honey, and I thought to myself, Where does the small bee-keeper get off at, if that is to be the rule?

Now it seems to me that if lowering the price is going to increase the quantity of honey used, the question naturally arises with me: It seems to me if there is no surplus of honey, it all goes, and if we have been holding it higher than it ought to be, it settles anyhow, and it doesn't seem to me it is necessary to lower the price in order to popularize the honey. I think if we hold it at a higher price—I mean fancy honey for table use, either extracted or comb—that would be working along the proper lines, instead of talking a low price and forcing 60 lb. cans upon the customer. Let them have 60 lb. cans if they want them, but keep the price where it ought to be.

Why do we want to belong to a National Association and have co-operation to lower the price of honey? Our small bee-keepers better take to the woods than to do that.

Mr. Wheeler—I wish you people—some of you—could see the thing as I see it. I am traveling between, and in touch with the retail market as well as the producer. I produce honey as well as sell it. In selling honey you have to keep in touch with the consumer in a peculiar way, and the price—it does not rise above a certain point; just as soon as it rises above a certain point the sales diminish.

Now it is not for you folks here who go to these conventions and talk, to set the prices. It is a great movement all through the country—it is hard to tell where it comes from, or what it is, but the law of supply and demand goes into effect. In setting the price on honey, I have to watch the market, the consumers, and the retail grocers, and see what they say, and find out what they are paying, and use my judgment when I sell honey; if I don't, I will "get left." Because some people happen to find a "sucker," and sell honey for a good price, it is no sign everybody can get it. Some year you people will all hold off with your honey

and have it all left over; that is what would happen.

Two years ago the market here in Chicago was loaded with honey. One of my competitors went out and bought it for 10 and 11 cents. He kept it over, and in the fall he sold it away up, because there was no honey then to be had.

You have to be careful not to get too high with it.

I noticed a thing this year: The price of honey is higher; higher to the consumer as a rule, and the amount consumed is not nearly as much in Chicago. I don't believe there has been as much bought. There is a feeling among grocers that if they have to pay for honey so much that they don't make a certain per cent, they will quit handling it. The moment the grocer or his clerk stops pushing an article, the article will not be sold. It doesn't go without their pushing it. We are dependent a great deal upon the way the grocery men feel about it, and the more profit they make, the better they will push it. So soon as you folks begin to raise the price, so quickly does the grocer man begin to stop selling it. It is the law of supply and demand; you have to be very careful.

I found out, in Aurora, where I used to live, this fall there seems to be a standing price, no matter what the crop is or anything about it, or what kind or how much you have. The people who have a few colonies of bees near there will rush their honey off to the market for about a shilling a pound. I went out there with honey I paid 14 cents a pound for, and could not compete with those people; I could not sell a pound of honey; those grocer men bought all the honey around there, and I could not do a thing in Aurora this year. Some grocery men bought as high as 30 cases at a shilling a pound. How are you going to compete with those fellows?

Mr. Taylor—Get them to raise the price.

Mr. Hatch—How are you going to do it? It is the same with the Western producers; they will sell their honey at what they can get for it on the market; alfalfa honey granulates coming in to Chicago; we can't set a price for those fellows; we would lose our trade—that is all. We have to take

what the market says it is worth. A few people here cannot set the prices.

Mr. Ahlers—In 1908 I came from the South and shipped up 28 colonies of bees by express. I had a pretty good crop of honey; in two months I had 2500 lbs., which was a good crop from 28 colonies, and I tried to sell it. It was stated to me, "We are buying our honey at 4 cents a pound; the farmers are only charging me 5 cents a pound". That was 11 years ago. Now every farmer is getting 9 and 10 cents a pound for his honey, and the bee-keepers are talking all the time about the price of honey—that the price of honey does not rise; I think that is a raise of nearly 100 per cent.

Everybody is not so fortunate as to be a good salesman; everybody does not live in a big city like Chicago, where there are many wealthy people who will pay a big price.

At the Michigan convention everybody was offering their extracted honey at 9½ and 10 cents a pound. I have quite a lot of expense in the business, and at that price I just decided I would stop. I told a party that I would not buy any more.

The market is nearly bare, and Michigan bee-keepers—most of them—have sold their honey for less than 8 cents; they can get 8½ cents now in a wholesale way, if they have ten tons—they can get 8½ cents; that is the price of honey; I don't think that is a low price.

Where a man was formerly getting \$20.00 a month to work in an apiary, you can afford to pay \$50.00 a month and make more money on it at that price than if you were selling it for 5 cents a pound. Where you live in a city like Chicago, and have good salesmen, you can get a good price for your honey. If I lived on the outskirts of Chicago, I am sure I would sell lots of honey at 25 cents a pound, but I cannot sell it for that, not living here.

Mrs. Holbrook—Upon what basis are these low prices estimated? One season we get honey; the next season we get half a crop; the following season we may get a full crop. I would like to know how you can produce honey for 7 and 8 cents, with an average of one-half crop for three seasons in succession, and pay \$50.00 a month for an assistant, with 100 to

300 colonies? In this locality, with bee-supplies going up every year, and with the price of help going up every season, and when some bee-keeper in an outside town will offer 1,000 pounds of comb honey at thirteen cents?

Mr. Ahlers—He is not a bee-keeper, who has only 1,000 pounds of honey to sell, and sells it at 13 cents. They are farmers, as a rule; they do the work themselves—lots of them, probably on Sunday, and they don't pay out anything for labor. I figured up the other day, and I paid out \$100 during the month of October for labor, and I board three or four men part of the time. I have not had a good crop, but I made enough to pay my fare to the conventions, and get me a new suit of clothes, any way!

Mrs. Holbrook—We have the right to take into consideration that that money invested is entitled to from 3 to 6 per cent interest, also.

Mr. Ahlers—Some day I am going to bring a statement to the convention, and show the whole season's business; what I have paid out and what I have taken in. The man who is going to beat me on that has to get up a little early, and work harder, and produce better honey, and I will show that I make money.

Mr. Taylor—This gentleman has saved enough money to come to the convention and get a new suit of clothes—what did you sell your honey at?

Mr. Ahlers—The lowest price I am selling honey for is 11½ cents—extracted honey, in orders of 60-pound cans; that is the lowest price.

Mr. Taylor—What do you get for comb?

Mr. Ahlers—I don't handle it; I would not sell it; I have a few sections that I give away. I promised my wife, if business got a little better, that she was to have a new hat, if it didn't cost too much!

Mrs. Holbrook—We are entitled to something more than a suit of clothes, and a piece of bread—we want some honey on our bread, and we are entitled to it if we give honest devotion to our work. We want to make the business a paying business if we are going to follow it. If it is not worth that, we must put our thought to something else that will be remunerative.



If it is impossible to make this business remunerative, I am going out of the business and, more than that, I don't like to see the bee-papers come out, cutting the price of honey—quoting low prices—because there are many people in little towns, seeing those low prices, think they are getting a good deal when they are offered 13 cents. You must not put these low-price agitations in the bee papers if you want to keep the prices up.

Mr. Ahlers—At these prices I am selling 60,000 pounds of honey. When I get to the middle of January there will be over 60,000 pounds. I am closing up my business for the rest of the winter, putting my driver at home to take care of the house, and my wife and I are going South until May.

Mr. Wheeler—Did you produce all of this honey?

Mr. Ahlers—I produced 32,500 pounds myself, the rest I bought. I bought 9,000 pounds from one person and 6,000 from another; I paid one of them one-fourth cent more than we agreed on.

Mr. Wheeler—The purchaser of honey will get the price down as low as he can; I don't blame him for that.

Mr. Ahlers—No one is in business just for himself. I don't want to get the price down if I know an article is good. I want to treat the other man as I want to be treated. That is the right sort of a rule to follow all round. I pay enough for my honey so that I can always get what honey I want.

A member—Mrs. Holbrook spoke about having confidence in your goods and asking a price commensurate with your work. I offered my white clover honey to the jobber to whom I have sold for several years, at 15½ cents (comb honey), delivered, and he wrote back and said my price was too high. I got a letter in a few days from a larger jobber, asking me what I wanted for my honey. I thought, if I had asked too much in the first place, I would ask a little more, so I asked him 17 cents, and he wrote back and said, "ship it as soon as you can."

Mr. Niver—My little talk yesterday I think has created a wrong impression. The impression must be—from the few remarks I have heard—that all dealers wanted to cut the prices down to the producer. My talk was in the interest of bringing the two ends to-

gether—raising the price to the producer, and getting the price down to the consumer. There is too much margin. The producer gets 8 cents on an average perhaps this year, while the consumer, on an average, pays 30. I think that is too wide a margin, and it cuts down the consumption of honey.

Out in New York State, where I got my first education in the honey-business, we got honey down to 5 cents a pound, and Coggshall's were advertising 21 pounds for \$ 1.00, delivered anywhere in town. I quit the business. It got too strenuous for me.

Then, coming up here to Chicago, I saw there were good deal higher prices in vogue, and I went to selling honey to private houses—talking honey as a food value and its cheapness as a food. I have been at that for the last 10 years, in selling it to private families, and trying to educate the people to eat honey and pay good round prices for it, but in the stores, I found, where I was traveling, that the general price was from 30 to 35 cents a pound; that cut down the consumption; people did not eat honey as they ought to.

Now about my dislike for comb honey: I find that very few people eat comb honey to any extent. The 25 and 30 and 50 cents a pound men don't eat honey; it is the poor man that consumes the most honey; the rich man, who can pay 50 cents a pound for honey, does not eat it at all, as a rule.

I have yet to find one man out of the 10,000 customers and over that I reach every year, that eats over 24 pounds of honey in a year. I have found good, big grocers that run three and four hands to attend to the trade of the grocery store, that only take 24 sections of honey a year, to supply their regular trade, while I was selling quite a large number of tons of it in the same locality, of extracted; and all these things we have to think about.

My friend here says when you get honey too high he cannot sell it at all; people will not buy it, only in a very limited way, and that limited way is what makes the producer stay at home.

I have quit—like Mr. Ahlers—there is not margin enough in it to keep me on the road, so I am going to take a vacation.

Last spring (in April) one large producer in Wisconsin wrote to me: "I have 10,000 pounds of fine white clover

honey, and cannot find a market for it anywhere. What will you pay for it?" I wrote to him what I would give him for it, and keep to work through the summer; I generally take my vacation then. He said, "You can have it."

Then this fall he wanted to sell me his honey again. He wanted 10 cents a pound for it, and would not take no less, and he has his honey left.

I know of several big producers in Wisconsin that hold their extracted honey at 10 cents now. Well, I hope they will sell it. I told them I could not handle it at that price, without raising mine, and then that would cut down the consumption; it would make the people believe it was too high at the present high prices of living, and they would feel that they could not afford to eat honey, therefore I would rather quit—not letting my customers see me at all until honey could either be sold at a staple price, or was down to where it was previously in my travels.

Now about this question of labor production: The price, or the value of anything is decided by the amount of labor invested in it. If there is more labor invested in producing a dollar's worth of honey at present prices than in wheat, the bee-keeper will go to wheat raising, and vice versa.

Mr. Kannenberg—Mr. Niver says he will go out of the business if the conditions are so and so. That will give the amateur a chance to sell his honey in the home market.

Mrs. Holbrook—A man from a neighboring State came into a village not far from here, with a ton of honey and sold every pound at 25 cents a pound, around to homes.

Pres. York—Comb honey?

Mrs. Holbrook—All extracted honey. He said to the people to whom he sold, "No man can produce pure honey for less than 25 cents a pound," thus giving them the impression that any one bringing any honey into the State for less than 25 cents a pound was not giving pure honey. Hence those people bought that honey; they believed in that man; and his goods were not as good as other goods that were furnished in that State; he made them believe he had the best honey. Do you see the point back of that? He won the confidence of the people. He said, "That honey cannot be produced for

less than 25 cents a pound and be pure."

Mr. Wilcox—I know one or two men who sell large quantities of honey, and there is a secret in it; if I tell it, and don't tell who they are, it may help you some. They try to establish a uniform grade. You all know we cannot produce the same grade of honey at all seasons of the year, or from year to year; in different localities it varies. But you can have a uniform grade by buying different kinds of honey and mixing it to a certain standard—those different varieties of pure honey; you can have it uniform in color and flavor, and when they establish a market for that particular honey, and advertise it as their honey, they can work up a trade; I know of two or three bee-keepers who do that—and I think there may be others. I have never done it myself.

Mr. Huffman—I am a little like Dr. Miller on this question; I think that "location has a good deal to do with it." These parties can get these big prices where there is no competition.

Now Mr. Wheeler, in referring to Aurora, struck the key-note with us. We have parties—farmers—producing quite a little bit of honey—two or three thousand pounds of honey—who never think of asking more than 7 or 8 cents a pound of it. They come in and they flood our local market—fill up the grocery stores all round—and what are you going to do to get higher prices in such a place as that? I am asking for information. I held my honey back until that other honey was all sold, and now I am selling it for 10 cents. What are you going to do when they put their honey on the market at these prices? Where are you going to get off at? You cannot buy it from them; they will not sell it to you; they have their customers. I offered 8 cents straight to one party who had 2,000 pounds.

Mr. Reynolds—Nearly all our large dealers here in town bought white clover honey delivered at 6 cents.

Mrs. Holbrook—Who fixes the price of honey, the producer, or the man in the wholesale house, or the commission man—the wholesale man or the producer?

Mr. York—I would like to ask Mr. Burnett to answer that, as to how the market is fixed here in Chicago?

Mr. Burnett—I will ask Mr. Cavanagh to answer, by proxy.

Mr. Cavanagh—The man that sells the product is the man that puts the price on it; the man who produces the article is the man who should put on the price; the commission man is the man to put the price on what he sells. If a man writes 'n and asks a company what they are going to take, then it becomes their duty to put the price on it.

Mr. Kannenberg—You go into a wholesale house or a commission house, and tell them you have honey for sale, and that you will sell it for such and such a price; the commission man tells you the market quotation this morning is only such a price—what will you do then?

Pres. York—I would like to have Mr. Burnett answer. I think it would be interesting to know just how the markets are here.

Mr. Burnett—I hope you don't think I am going to pose as a Solomon in this case. I was very much interested yesterday in reading a reply of Edison to a criticism of a celebrated divine, so called. The substance of Mr. Edison's reply was that the golden rule is about as good a guide to go by to get into Eternal Bliss hereafter, as he knew anything about; and, furthermore, he took a rather advanced ground in saying that we as human beings are not creators of thoughts; we simply get impressions from our environment. Now I think perhaps the ordinary commission merchant, of which I claim to be one (very ordinary at that), gets impressions as to about what he can obtain for honey, and he acts accordingly.

Mr. Niver comes in and he asks the price of honey. We tell him. "Well," he says, "I can't pay that price for it; if I do I will have to raise my price, and then I won't sell so much."

"Well, now," I say: "Niver, don't you think the producer ought to have so and so?" "Oh, yes, yes, yes, but then I can't sell the honey; it has to be sold at such and such a price," and if Mr. Niver finds that he cannot buy the honey anywhere less than he can there, we are liable to make a sale.

The commission man certainly is between two fires. One day a man came in and wanted to know if we could get higher prices for his stuff if he sent it to us. "Oh, yes, we get the highest prices going"; and he

seemed satisfied; he went away, and another party standing by, says, "I want to buy some honey, Mr. Burnett." "Certainly, I will be glad to sell you." "I want to buy it cheap." And I replied, "We are the cheapest place in town—you have the right place right here."

Another party stood by, looking on (he was from Hegewich). By and by he got a chance, and he said, "Well, now, see here, Burnett, I heard what you said." "What did I say?" "You said to one man you could get the highest for him, and to the other fellow you said you would sell the cheapest of any one."

"Yes, I replied, "I am a commission merchant; it is necessary that I have two reputations." (Laughter.)

Mr. Hatch—I congratulate Mr. Burnett on getting out of that corner.

Mr. Ahlers—I think we can all draw our moral.

Pres. York—We have another paper, or talk, on the program—Mr. Jacob Huffman, of Monroe, Wis., on

### Stimulative Feeding.

I did not care to give a talk on this subject because I thought there were others who are better informed, and know how to talk on it better than I can.

I have sketched a few items of no great length; I am going to do as a minister told me once—I will make a skeleton, then when you people have the opportunity to talk on it, you can fill in the meat.

I have been asked to open this question for discussion. I certainly could give no better reason than has many times been given by our best honey producers. Stimulative feeding would most certainly be necessary if increase in colonies were the object, and no less so when a honey crop, either comb or extracted, is desired.

I myself was very much pleased with the question answered by Mr. Crane, at the Albany convention. He said, that by stimulative feeding he had been able to produce between 15,000 and 20,000 pounds of comb honey, and an increase from 600 to 800 colonies. How is that for stimulative feeding?

We admit that seasons vary, and some springs bees require less feed, but my experience has been that feed-

ing at the proper time is beneficial. The proper time may be considered from more than one standpoint. No colony should be allowed to become short of stores, regardless of the time or season. The fate of the honey crop hangs on how the brood is fed between fruit-bloom and clover. It stands to reason if frost or cold wet weather comes, the brood would suffer if no unsealed stores are within their reach.

My experience has been that feeding in the open brings the best results; gives each colony an equal chance, but in my section of the country for the last few years I find my neighbors' bees are almost too impudent; just help themselves without an invitation. So I have to be satisfied to feed each colony separately, and thus make sure the food-supply is adequate.

I prefer the division-board feeder, but have successfully used other ways, such as empty combs filled with syrup, etc. I think the Miller feeder, for general purposes, the best feeder on the market, and for fall feeding there is nothing better.

JACOB HUFFMAN.

Monroe, Wis.

Mrs. Holbrook—Does the Miller feeder require removing the frame from the hive? How are you going to feed a colony in the winter, such as you find are weak and require stores?

Mr. Wilcox—I would never feed a colony in the winter unless absolutely necessary; then I would feed it a comb of honey if I had it.

Mr. Huffman—In my way, I will answer that question. His plan is all right if you have the honey to put in. If not, take a chunk of candied honey and put on top the frames and put a quilt or something over that. I have carried quite a few colonies through the winter with candied honey. They seem to like it better because it is honey.

Mrs. Holbrook—I was wondering if it would be safe to give a colony a pail of granulated honey in the winter. Would it remain granulated? Would they be able to eat it without its "running," before spring?

Mr. Huffman—Yes, I have found it very successful; I have fed 500 pounds of honey in that way. I don't know that it will do a colony the same good

as the liquid, but it is easier and quicker; it will save the colony.

Mr. Arnd—Would not the heat of the bees liquefy that honey?

Mr. Hoffman—I lay the pail down like that (illustrating), and lift this end up, and the bees can come up around the pail on the side. I have seen as many as a quart of bees at the end of the pail; the bees liquefy it themselves while using it.

Mr. Arnd—Has any one tried stimulative feeding by putting granulated sugar in the division board-feeder?

Mr. Huffman—That is Dr. Miller's plan; I never tried it. As I understand, Mr. Arnd, you meant the division-board feeder; I meant Dr. Miller does that with his Miller feeder; he puts in the granulated sugar, first, then water on top, and that soaks down through and liquefies it.

Mr. Arnd—I have heard if you put granulated sugar, A 1 sugar, in the division-board feeder, there would be just enough moisture so that the bees could go in and help themselves, with no water in it at all.

Mr. Huffman—I think it might work all right.

Mr. Arnd—They don't put in any water at all; there is enough moisture inside the hive so that the bees can suck the sweetness out of the sugar.

Mr. Wilcox—How many believe, if the bees could take the dry sugar, put into the feeder, there would be enough moisture in the hive, or any other place, so they could take any portion of it?

Mr. Arnd—The way I happened to ask that question, somebody told me that was the way they stimulated their bees.

Mrs. Holbrook—How can you feed sugar for stimulative feeding in the spring? Stimulative suggests feeding them prior to honey flow, or to brood rearing. How can you feed sugar syrup, or sugar, with safety?

Mr. Huffman—I might refer you to what Mr. McEvoy said at the Albany convention; he said a good deal the same as Mr. Crane; who said his bees would all have starved if it were not for the stimulative feeding. He simply used granulated sugar, and all he did was to make that half and half, and stirred it until the granulation was all out of the sugar, and fed it in that way.

I have fed as late as October. I have shaken swarms into a 10-frame hive on foundation, and fed them granulated sugar. I have had the bees winter better, and have fed them on 2 cent sugar; we have a condenser in our town, and I can get good sugar at 2 cents. I have had good success with it. Mr. Alexander, I believe, claims to make it 3 and 2; I never have it any stronger than half and half. I fed it to 5 colonies in October, and had half the frames sealed over; I fed them half and half, and they came through splendidly.

Mr. Wilcox—I feed every year, more or less, for stimulative feeding in the spring, and I mix in the proportion of 2 to 1—2 of water to 1 of sugar; boil it together, and then feed it in feeders both at the entrance and on top, and also the division-board. That kind of feeding was not adapted to fall feeding; you should make a distinction there; it is too thick for the fall of the year, and just right for spring.

Mr. Ahlers—I doubt if Mr. Wilcox's bees were stimulated, but merely kept alive. If you want to stimulate I think the bees should have honey; they would have reared more bees if they had honey; if they had had no sugar they would naturally have died, but it didn't stimulate them.

Mr. Wilcox—Then you think honey is more stimulative than sugar?

Mr. Ahlers—I do. It seems to excite them; they go at sugar in a general way, but with honey they seem to get excited.

Mr. Holbrook—I saw an article in a bee-paper, recently, to the effect that sugar syrup weakens the longevity of bees—and that appealed to me. If you feed sugar syrup in the spring, is there not danger of having them carry it up in the combs? Can you say with absolute certainty that your honey is absolutely pure, when you feed that sugar syrup in the spring for stimulative feeding? I believe in stimulative feeding, and I know the result is most satisfactory, but I believe in feeding honey.

Mr. Smith—That is a point I would like very much to get scientific evidence on. I am a little inclined to think if we feed sugar for stimulative feeding that we do not produce pure honey. I am inclined to think that you cannot get as good a grade of honey.

How many of us know whether we get as good a grade of honey produced from one flower as from another—from one blossom as another?

I don't know whether it would be a good thing to excite the bees or not. The honey may excite them, but that don't necessarily produce more bees. That is a point I would like to have determined.

If we are going into the subject of bee-culture to succeed, we ought to know a great many of these things, and that is where this Association might accomplish considerable—if we could determine whether the bee is as long lived when fed on sugar as on honey, and whether it can do as much or more work. We don't know what the best feed for our bees is. We know when it comes to animals—because that has been tested scientifically, but we don't know when it comes to producing honey.

Mr. Whitney—We all know that honey is quite different when the bees are fed on sugar syrup; there is more or less pollen in honey, but there is none of it in sugar syrup; pollen is one of the principal foods of the young bee. I would think, for stimulative feeding, honey would be preferable to sugar syrup. If you have not the honey, why, do the best you can.

Mr. Taylor—Bees need the pure honey; they need the pollen; the bee can live on pure sugar just as well as they can on honey, and they will live better in winter on the pure sugar syrup because they are not active; they don't need the bee-bread, as we used to call it, but you can't rear a young bee on pure syrup; they have to have bee-bread.

If you want to winter bees safely, take the combs without any pollen in them or foundation, and feed them the pure sugar syrup, and your bees will winter first-class. There is nothing to excite them or give them any disease, but you can't rear any young bees from that, and they don't need any honey in the winter, but in the spring, if you want brood, you must have combs with pollen in them, or you must give them something that answers for pollen in some shape, and then your sugar syrup is just as good as honey.

Mr. Cavanagh—The point in regard

to stimulative feeding that we must not lose sight of—a queen does not control the amount of brood. If we open one of our hives now we would very likely find a comb somewhere in the hive that has quite a good size space of eggs, and will not find a bit of unsealed brood; in the spring of the year, if we have a pollen supply we can make a balanced ration by feeding sugar syrup, and where we have a good pollen supply we can feed sugar for stimulative purposes successfully. On the other hand if we attempt to feed sugar syrup when there is a large amount of honey in the hive that is covering the pollen up, we may do more damage than good, because with honey, so long as we are feeding plenty of sugar syrup, the bees will not uncap that honey and get to the pollen.

The time to stimulate the bees is when they are short of stores, and when they cannot get a natural supply of pollen; never feed them during rainy weather or a dearth, when they have plenty of honey in their hives; if you do they won't uncover that pollen unless they are breeding so rapidly that they will uncover it.

Mr. Wilcox—Of course, most of these things that have been said are true, and not to be contradicted; we may as well let it go and take it for granted.

As to whether the sugar fed will go into the surplus at the first extracting—in the first place, as has been said, there is no necessity for feeding at all if they have plenty of feed. If they need the feed, if they are destitute of feed, they will consume it, and you can get somewhere near an idea as to how much they will need. If you feel too much they will carry it up, and it will be extracted at the first extracting. I have tried that many times.

I have fed dark pure honey for stimulative feeding; have given them too much. The first time I extracted I noticed it; of course they carried it up, and they will do the same thing with sugar syrup, but sugar syrup has been partially, at least, chemically, changed to honey. It is not pure sugar syrup any more, and the thinner you feed it, the more they change it, and that is one of the objects of feeding it thin. I don't think you need

to fear about feeding all that you think they need; and don't feed for the purpose of having it stored up there, and then you won't feed them enough to do any harm.

Mr. Taylor—I want to say a word in regard to stimulative feeding. In my opinion the only correct way to stimulate bees is to—say in the fall—see that they have an abundant supply of honey in the hive. I don't think it is a good plan to put bees into winter confinement unless they have enough to last them through until they get plenty of honey from the flowers.

We have to study these matters, to save labor, to save care, and to save the loss of bees. As a general thing, a colony that is poor in the fall, has hardly any honey, is weak in bees, is not worth trying to save, anyway. We get our bees well supplied with honey, and they are all right in the spring.

Mrs. Holbrook—We all want to produce the greatest amount of honey possible from the fewest number of colonies. Mr. Alexander says, if you will feed the bees days when there is no flow of nectar you will keep that work going on; they will not get to loafing, or get to robbing. Would it be safer to feed sugar syrup during such days, either for comb or extracted honey? Will the bees draw out comb on foundation with sugar syrup?

Mr. Taylor—They surely will; if it is warm enough so they can work foundation, but then it is not safe to feed them much sugar syrup if their hive is full of honey in the brood-combs, because you might run the risk of sending your sugar syrup into the sections; but you can put your bees on foundation as soon as warm weather comes, and feed them sugar syrup, and they will work out their foundation and rear brood very soon; the only thing is the temperature.

Mr. Whitney—I have seen a good deal of that feeding business, and heard what people say, and have been watching it for a good many years. I think the drift of this whole talk has not been the right thing for this convention, especially when it is to be published.

How are we going to have people have confidence in us? Now you talk about feeding sugar—of buying stuff



of our competitors who are putting glucose in their sugar. We talk about buying that material from our competitors and feeding it to the bees, and then we come in here and publish the matter. I don't think that there is any need of this talk about stimulative feeding.

The thing to do is, when you get a good crop of honey—to keep enough back for feeding. Don't go and sell all your honey, and then buy something of your competitor to feed back to the bees, for some of it will go into the supers. **GIVE YOUR BEES HONEY!**

A Mr. So and So, out in the country, used to buy sugar by the barrel, and feed it to his bees, and sold the honey to everybody around there for pure honey, when it was sugar honey! If that man had taken care of his business, and saved some of his honey instead of shipping it all off, selling it for 4 or 5 or 6 cents a pound, and then six months afterwards bought sugar to take the place of honey to feed his bees, he would save the reputation of beekeepers and of his honey. I don't think any man deliberately used sugar to make honey, but I do think it is bad policy to come to a convention and talk feeding bees sugar.

What is the sense of it? Stimulative feeding! The bee-papsrs are full of it, sometimes. Some editors may send out a question wanting to know what everybody does about stimulative feeding, and they will all tell how they feed, and the public gets hold of it, and gets not very good impressions. If we are going to buy glucose, buy it from the man who says it is glucose.

The longer I keep bees, the less I want to touch sugar syrup, or any other kind. I feed my bees honey. I don't think that anybody ought to say at a convention that if you feed sugar to your bees and they store it in the combs, that it is honey; I don't think that thing ought to be said; I don't believe it is so. The instant the chemist finds this he will so state.

Mr. Smith—I can't let that talk go.

I believe bee-keepers, as well as everybody else, are entitled to know the truth. I believe in stating the truth; I don't care if it ruins our business.

If I can feed my bees 2-cent sugar and carry them through, and get them to put more honey up, I have as much

right to do that as a man has to feed his cow hay and bring her up until clover comes, until she can furnish milk.

I don't know as much about honey as I do about sugar. I have run a sugar mill; we have made hundreds of thousands of pounds of sugar, and if you get 2 per cent glucose into the juice, you cannot make sugar out of it. Cane sugar is said to be largely glucose; if 2 per cent of that juice is glucose we cannot get it to granulate. There is no glucose in sugar.

We want to get at the truth in this discussion about stimulative feeding. This is worth more to me than all the other discussions we have had, personally. What Mr. Taylor said is worth \$100.00 to me.

To Dr. Taylor: "I am not going to give it to you." But we must cheapen the production of honey if it is possible to do that, and make as much money as we are making now; we want to at the same time make more money for ourselves; cheapen the price of honey if we can make just as much money for ourselves.

There have been lots of remarks made here, and there have been some remarks made that can be construed to our detriment if people want so to construe them. No honest person would allow sugar to go into his honey and sell it as pure honey, but there may be people that would rather have a certain kind of honey with sugar in—sugar mixed with it. What we want to do is to get at the truth of the matter. I would like to know if the bees can take that thin syrup and convert it into honey—what is called grape-sugar—if they can do that, I would just as soon eat it, if it tastes the same.

Mr. Wilcox—Prof. Cook says they can..

Mr. Huffman—I think Mr. Smith has struck the key-note; if we can find cheap feed for our bees and get honey, and sell it for 14 cents a pound, we have a bonanza. If you can find a pound of sugar syrup in my honey—and I have fed lots of syrup—I will give you that honey, gratis. I never feed it so that I know they are carrying it into the sections or combs, but feed enough to stimulate the bees. What are you going to do with the weakling that has not enough to keep it alive? You have to build up and

strengthen them until they get ready for the harvest.

Another thing: You want to study your location. When your harvest comes in, commence at the right time; don't commence too early; don't commence too late, but at the proper time, and if you have fed properly and rightly, you are going to get the benefit from such feeding. Take Mr. Crane, for instance. How many pounds of comb honey does he produce and sell? He gained 15,000 to 20,000 pounds by stimulative feeding. Also Mr. McEvoy, of Canada. I think they are two of the best authority we can look to, and if they will advocate it, why should not we go ahead and stimulate?

Will the sugar fed to bees make them build comb? Yes, natural comb; I did it. I had three or four pieces of comb as large as my hand; melted it up, and took it to the bee-keepers' convention and handed it to Mr. Dittmer, and told him it was made of sugar syrup, and I knew it; that was the time I stimulated. This speaking so decidedly about adulteration, of a little syrup getting into the honey—bless you, I don't know what to think about it! I have been 35 years in the business. In 1885 I had 215 colonies of bees and took Heddon's plan. I put 2 to 1—about 1-3 of that was sugar—I fed that syrup and lost half of my bees, and I have been feeding half and half, and never lost any on sugar syrup.

Mr. Wheeler—I want to answer one question: This man put it pretty strong, about glucose and white sugar. I think if we remember that investigation about the National Committee trying to find out of the sugar trust how they manufactured their sugar, we all made up our minds it was—a large percentage of it—glucose; but they had a particular way of turning that into white sugar, that they would not allow the public or the Committee to find out. I believe, myself, there is more than 2 per cent of glucose in white sugar, just from that investigation. I have no way of finding out. Another point I thought of when Mr. Huffman was speaking, about buying cheap sugar. It has been my experience, taught by people who are supposed to know, that it does not pay to buy cheap sugar to feed your

bees; it pays to buy the finest grade of sugar when you get it to feed your bees; if you put 2 cents of feed in your bees they only store that amount; if you put 5 cents you get enough for the money invested, and more. So I don't see how 2 cent sugar bought for bees would pay any one.

Another question: That the bees in consuming the syrup and storing it in the combs, never store half of what they are fed. They will consume and put into brood and destroy more than 50 per cent of the stuff that is fed, so why in the world will you go to work and extract your honey, lug it to the market, and get very nearly the same price you pay for sugar, and then buy sugar next spring and feed your bees?

Mr. Chapman—I can help you a little bit, perhaps, as to granulated sugar and glucose. Granulated glucose can be bought in this town, but the gentleman having experience with sugar is speaking from another standpoint. After glucose is put in syrup, if you expect to make granulated sugar out of it, you won't get granulated sugar. You might be able to grind that glucose up and add it to granulated sugar, after the sugar had granulated, but if you put glucose first in sugar syrup it never would granulate.

Pres. York—I think we will have to stop now. We will come back again at 1:30 o'clock for the afternoon session.

Do not forget, if you like to look at this foundation fastener of Mr. Coppin's, it is here on the table. The convention stands adjourned until 1:30 p. m.

### Second Day—Afternoon Session.

Pres. York—We come to the closing session of the convention. We have one more paper, I believe, that of Mr. Wilcox. He will probably be here a little later. We will go on with the questions.

### Melting Granulated Honey.

"What is the best method of melting 60-pound cans of granulated honey? Has any one tried the Pouder hot-air tank?"

Pres. York—How many have tried the Pouder method of melting honey? Has any one tried the Pouder hot-air tank?

Mr. Bull—I have.

Pres. York—Does it work all right?

Mr. Bull—Perfectly.

Pres. York—Will you tell a little about it?

Mr. Bull—I have melted only three (3) batches; I used gas. I turned the can upside down, and let the honey run out; it takes about 10 or 11 hours to melt a can.

Pres. York—The first part of this question is: "What is the best method of melting 60-pound cans of granulated honey?"

Mr. Huffman—Are you not liable to over-heat the honey by this method?

Mr. Bull—Almost imposible by this method.

Mrs. Holbrook—Arrange a standard with a platform, and a second little platform a few inches above; set this 60 pound can on that, and place a box over this which is lined with asbestos, and this is heated by a little lamp underneath, on the principle of the Aladdin oven. It will require about  $\frac{1}{2}$  cent's worth of oil to liquefy a 60-pound can during the night.

Pres. York—Any other method? I suppose the most common way is to put it in a tank of hot water.

Mr. Rodenberger—I have a galvanized iron tank that holds 4 cans. I put in about a foot of water; a couple of strips of wood for the cans to rest on, and have a tight cover; I set it on the stove and let it heat; In a few hour it requires an awful temperature; let it run out as fast as as it melts, but then some of it comes out in lumps. I let it settle a day or two before I draw it, and it is perfectly clear.

Mr. Anderson—It seems to me if a 60-pound can of honey is melted in an hour it requires an awful temperature; it is apt to scorch the honey. It takes me 7 or 8 hours the way I liquefy honey. Of course I liquefy 17 or 18 cans at a time.

Mr. Rodenberger—I said "I can do it," but I don't do it; if you want to hurry it you can do it; if I am not in a hurry I let it set around there all day—perhaps all night; stir it up once in a while.

Mr. Whitney—Which is the best way, to heat it in a few hours' time or to do it slowly?

Mr. Rodenberger—I prefer to do it slowly.

Mrs. Holbrook — That emphasizes this point that came to me last winter,

in my experience with a commission man. He was liquefying honey in a half hour's time, by setting it in a tank and letting boiling water run over it, liquefying it for his customers for the retail trade. I saw some of that honey after it was liquefied, and you would not have recognized it as the same honey; it was of a darker color, and the flavor was changed, and those customers were not getting the benefit of the fine product to which they were entitled. I meant to have taken this matter up with the bee-papers, to have them send out a sheet to every commission man to show him how to liquefy honey, that it might preserve its original color and flavor.

Mr. Wilcox—What causes the different flavor when you heat it too much? In what way does it change the flavor? In sugar syrup it does not. What changes the flavor of honey when you overheat it?

Mrs. Holbrook—When you have over-heated honey, from the chemist's point of view, you have changed it from honey to sugar syrup. It is not honey after it has been submitted to a temperature of 212 degrees, or even 180 degrees; it is no longer honey, and you can consult Hoyle on that; confer with the Bulletins from Washington.

Mr. Anderson—I have melted a good deal of honey in my time, and when I try to melt honey inside of 8 hours' time, I am apt to discolor it, and I don't think I can get all the granules out. I don't believe I have ever liquefied honey properly inside 8 hours; it does not change the color, using 8 hours. I have liquefied it—on a rush order—in 5 hours. I hold it at a temperature of 160 degrees or 150 degrees.

Mr. Wilcox—Won't it melt in 3 hours at that temperature?

Mr. Anderson—I have not been able to find out that way.

Mr. Pritchard—Am I to believe, then, where honey is melted to a degree of 180, or a little more, it keeps it from granulating—and then is it honey or syrup?

Mrs. Holbrook—You will read in one of the bulletins—it was a bulletin that was sent us from Washington—read that analysis, and when every one of you have digested that analysis, you won't come here and talk as you have today.

Mr. Wilcox—When you come to talk about the chemical side of it, let me

tell you an experience we had in our State. Five or six bottles were sent up to the University, of white clover honey, pure, A No. 1 comb. The man that tested it said it was the worst adulterated honey we had in the lot. What does the chemist know about it, at that rate?

Mr. Niver—Mr. France sent a lot of honey to Washington, and some of his best honey—some that he thought the finest that he produced that year—was pronounced 2-3 glucose!

Mrs. Holbrook—Does not some one recall the explanation of that? There was an explanation of that being turned to glucose.

Mr. Whitney—I had a little talk with Mr. France on that subject about the same time, and I judged from what he said that the age of the honey made a difference. He says you can test honey one year—it will test up to pure honey; when you put it away and have it tested the next year, it is adulterated; time changes the chemical properties of the honey.

Pres. York—Perhaps we don't know very much about that, so it is hardly worth while to spend any more time upon it.

#### **Does Same Honey Vary in Weight?**

"If a tank of extracted clover honey weighs 200 pounds at extracting time (September), how much more will this honey weigh in winter when granulated?"

Mr. Arnd—I think it will weigh less.

Mr. Wilcox—I think it will weigh more if placed in a room where it will absorb moisture; if placed where it will give off moisture, it will weigh less.

Mr. Smith—If it absorbs moisture it will not granulate, will it?

Mr. Wilcox—Yes, it will.

#### **Granulation and Crystallization.**

"Define granulation vs. crystallization. What is the difference between granulation and crystallization?"

Mr. Niver—I raised that question with Mr. Smith when he said cane sugar granulated; I supposed it crystallized—honey granulates—and that was the distinctive feature between the two. I would like to be set right.

Mr. Smith—If you will tell us what the difference is between a grain of honey that granulates in time, and sugar that is granulated by heat, per-

haps he could get the information that he wants. I have never examined the grain of honey after it goes through the process of what is called granulation; whether it unites in a solid or perfect crystal, or one of the various forms of crystallization, I don't know, but I would naturally suppose it did, because rocks are crystallized. You break up a rock, or sand, or anything that becomes solid, and you will find it was crystallized.

In our conversation, as we were talking here this morning; molasses, after it becomes sugar, dries so we can handle it in our hands, and we call it granulated; and I think we call honey granulated when it becomes dry so we can handle it without its running.

Mr. Burnett—There is a difference, is there not?

Mr. Smith—There possibly is. I never examined granulated honey under the microscope.

Mr. Burnett—You take granulated honey, and take sugar; a temperature that will melt the honey in your hands will require less than to melt sugar.

Mr. Smith—Certainly.

Mr. Niver—In my work the most difficult point I have to get over with a customer who is not familiar with honey is the granulation. They say, "That honey that you sold me last year, all turned back to sugar; it was made out of sugar."

If you melt up sugar, or make a simple syrup of it, when the water dries out they notice that the sugar is crystallized and becomes more like candy, while honey granulates and is more like lard, always soft. There is a distinguishing difference. I made that explanation. Maybe I have been "talking through my hat." I would like to know.

Mr. Burnett—I move that Mr. Smith take the matter up and make a study of it, and report through the American Bee Journal.

Mr. Smith—I will do that without putting the motion.

#### **Room Temperature for Bottling Honey.**

"When bottling honey on a large scale, at what temperature ought the room to be for working and for temporary storage? Object: To prevent future granulation as much as possible."

Pres. York—That is, after the honey is in liquid form, I suppose, to prevent granulation.

Mr. Arnd—After honey commences to granulate, you cannot keep it from granulating; you will have to keep it in a temperature of much over 100 degrees after it starts.

Mr. Wilcox—If that question had been simplified a little by leaving off the first part, and asking what temperature honey may be kept to prevent granulation, my answer to that would be 80 degrees is perfectly safe. I base that opinion upon my experience in storing comb honey. I have comb honey stored 3 and 4 years in my dining room on top the cupboard, without any signs of granulation. The temperature remains all the year around as warm as the upper part of a living room would naturally be.

Mr. Arnd—Is it not true that extracted honey will granulate more readily than comb honey?

A member—What kind of honey?

Mr. Wilcox—This that I have was clover honey. There is quite a difference between clover and basswood; a very great difference.

Mr. Arnd—Alfalfa will granulate still more quickly.

Mr. Whitney—I was going to ask that question: Does different kinds of honey granulate in different temperatures?

Mr. Kannenberg—Mr. Wilcox says that his honey did not granulate in 80 degrees temperature. I have honey that I put away in 1907, and I have it standing in my shop, and in the winter, if you have water standing there, I suppose you could skate in there, and in the summer when it is very hot, you could almost die in there on account of the heat, and that honey has not granulated yet. It stands both the heat and the cold.

Mr. Arnd—Mr. Kannenberg had that honey at one of the conventions, years ago.

Mr. Wilcox—I would like to know, has it ever granulated since you have had it?

Mr. Kannenberg—No.

Mr. Wilcox—I have some honey that I have had since the World's Fair, that has not granulated—some samples—but they were once granulated.

Mr. Whitney—I have some honey in the comb that I kept in a glass jar 4 or

5 years, and it was uncapped, and the jar was not sealed, either, and that honey didn't granulate at all; it was in all sorts of weather. I suppose it is, perhaps, because of the kind of honey, and it was so thoroughly ripened that the particles didn't move.

Mrs. Holbrook—We have on our labels: "When this honey granulates it is a sure test that it is pure honey." The question arises in my mind: Shall we educate the people to granulated honey, or to clear honey in a liquefied form; in other words, shall we try to keep the honey before them in liquid form or granulated?

Mr. Kannenberg—Both. Educate them to both.

Mrs. Holbrook—In other words, should the groceryman keep his honey liquefied? I find the grocer constantly liquefying honey to keep it in that state on the shelves, and by the time spring comes you would be ashamed to say that was your honey. They cannot watch it closely enough in heating it to prevent its coloring. It seems to me we might as well let the people see the honey in the granulated form; if they come to believe it is pure honey from its granulated state, rather than sacrifice the color and flavor of your honey to keep it liquefied.

Mr. Arnd—In my place of business I usually have honey both liquefied and granulated. I have a little note on the granulated, "pure granulated honey," so they will realize that is pure honey just as well as the other.

Mr. Niver—I don't like to suggest to people that honey is anything but pure. I never say to a man "impure honey," unless they ask me about it. Everything that I print and in my talk has no reference whatever to pure or impure honey. I believe that question, that there is such a thing as impure honey, is hurtful.

Mr. Niver—I have been talking all the while that pure honey generally granulates in our Northern climate, there is only one honey but that does granulate here in our Northern climate—and that is the honey from Florida. If my customers keep honey any length of time I tell them they must expect it to granulate. I believe that it is the way we should do—teach the people the truth; it is better than

error, any time. The truth is the best at all times.

Pres. York—Mr. Niver said he tells his customers that pure honey never granulates.

Mr. Niver—I used the expression—not as a suggestion; I never suggest the words “impure” honey, or “adulterated.” I tell them pure honey, from the bees, in our Northern climate, candies or granulates, as they call it, and that it is to be expected that it will do so.

Mr. York—I would say simply that honey “granulates.”

#### How Is Honey Sold—Simply As Honey, Or on Its Merits?

“Is honey sold on its intrinsic merit, or simply as honey?”

Mr. Burnett—That is a question I would like to have some of these wise folks talk about. It occurs to me that it is an important question, for I think the old bee-keepers will substantiate this idea that I have, which is simply one from experience in meeting various kinds of honey produced. This year the crop of honey in a given locality, say Southern Wisconsin, is very white and in every way desirable, both to the eye and to the palate, but, next year, honey from that same locality is of a different color, and the flavor differs.

Now we will say that Mr. Doe produced that honey last year, and his name is on the packages, or on the sections—anywhere you please—and the other fellow—the man who consumed it, and bought it—he gets the name off this package and writes to Mr. Doe next year, or that year, to send him some of his honey next year; that he liked it so much, and Mr. Doe complies with this request, and sends him the honey next year, and the purchaser at once sees that the honey is not the same kind of honey that he had from him last year. He thinks that he has not sent him the same kind of honey and wants his money back.

I have had a great deal of discussion in the last quarter of a century along those lines about people having their names on their honey, where it came from, and they wish to build up a reputation for this particular thing.

It happens that a man bought some honey that he was told came from

Southern Wisconsin, and he didn't like it at all; he goes to the dealer, and the dealer tells him, “Here is some beautiful Wisconsin honey.” And the customer says: “O, don't talk to me about Wisconsin honey; I have got enough of that!” The dealer shows him something else, and says, “How do you like this?” “That is fine honey; that is all right. I will take that.” As a matter of fact that was Wisconsin honey—second choice, but this he was buying on its intrinsic merit to him at that time; he tasted it, and liked it, but the other he refused because he was prejudiced. The point is this: Should honey be sold on its merits? because every year, to some extent, the honey from the same locality differs. This, I think, can be thoroughly substantiated by people who have had as much experience as some of our friends here, and therefore I maintain that the producer of honey in sending it to the foreign market should not put his name on it; it may be all right in his home market; but in sending it to an outside market his name and address should not be put on his honey. If it is good honey it will sell on its merits simply, on the market—a place where they practically take no man's word.

Mr. Wilcox—Those are good thoughts, Mr. President, and I am glad they are brought up. I am one of those who feel I would like to put my name on my honey, for reputation, but how am I going to do it? I have adopted this plan:

So far as practicable, send a sample before selling the honey, and tell them you will sell that honey at such a price; and at the same time, if you have dealt with that person any length of time, he ought to know—and if he doesn't, you can tell him—that you have different kinds of honey; always do that, because honey the year before. There will be a different flowers, will differ in color and flavor, and it is impossible one year to supply your customers with exactly the same grade and quality that you did the year before. There will be a difference that an expert will discover, but the average consumer is not so particular as the producer; perhaps the dealer knows better, but the average consumer does not. I have succeeded so far in pleasing my customers; where I have a doubt in the matter, I send them a sample.



**Producer's Name on Honey.**

"Should the producer's name be put on packages?"

Pres. York—How many think it should? (Eight.) How many think it should not? (One.)

Mr. Smith—It would depend upon the kind of honey.

Mr. Arnd—And who was selling it.

Mr. Wilcox—I might state my reason for preferring to put my name on the package—that the railroad company will know from whom it is shipped. I have had several shipments laid up in transit and they were lost and could not be traced, except the name was on the package, when they come right back and get a new bill.

I had some honey shipped to South Dakota, and it went to North Dakota, to another man by the same name, but my name and address being on the package prevented the loss of this honey. The man that it was sent to, or rather that got the honey, wrote to me and asked me why I was shipping him honey.

Mr. Arnd—The name could be put on in such cases as that; we could put on a tag, and the tag could be taken off. I think for a man to send any honey to another who re-sells, that he ought not to have his name on the package, or, at least, only in such a way that it could be taken off easily.

Pres. York—It is right to put the shipper's name on each large crate or package, but on each individual case, is what Mr. Burnett means.

Mrs. Holbrook—I was brought up in a peach-belt, and I know that the Michigan peach has a reputation, and I know that there were some men who could not sell their fruit, and there were other men who always kept their name on the boxes, and their name sold their fruit.

**Tampering with Shipped Honey.**

Mr. Ahlers—I want to say that it makes a difference whether or not you put your name on the packages. I have had my shipping boxes, with my name and address on the outside for the past few years. Apparently the railroad employees have learned to taste my honey; I have lost at least a half dozen pails from a dozen this fall. Some railroads are worse than others. Some one said to me that they had

probably found out the high quality of honey I sold.

Mr. Burnett—I think what I said previously covers that question quite largely, too. It is a good thing not to put the name on, because of the prejudice of the people against buying honey from localities where they supposed they got honey from before that was not good.

Now it is a very natural thing for people in Chicago to ask the dealer where this honey was produced. He may have been told by the seller that it was produced in Wisconsin or California, and if the honey suits the buyer, he wants that honey again. He gets something that he is told is the same kind. It tastes differently, and for that reason it may be from the same party and the same locality, yet the honey tastes differently.

I know that last year, from Wisconsin, we had a shipment of honey, and the purchaser was in here this week (the man that purchased this honey last year); he said, "That was a fine lot of honey I got last year, but it was very different from this;" the man's name was on the package and that is why, in my judgment, it is a disadvantage for people to put their names on packages of honey.

There is oftentimes a prejudice existing because parties have been falsely informed. Take certain alfalfas, they run year after year very much alike; from the same place they are very much the same, but the alfalfa honey of Arizona is entirely different from the alfalfa honey of Kansas, or the alfalfa honey of Colorado; just why these things are so is another matter, but from my experience you will see that it is a disadvantage for a man to have his name on the package, beyond the necessary directions to get it to its destination, if it is to be sold through a dealer.

Mr. Wheeler—I had quite a bit of trouble last year in honey being tampered with on the road. It seems to get worse every year. Nearly every shipment I have received this year had been opened and comb honey taken out. I had maybe a half dozen sections taken out of the box. Of course they knew who it came from. You never seem to get any satisfaction out of the railroad at all; it is just a little matter, and it takes years, sometimes, to get

anything out of them. I would like to hear from Mr. Burnett as to how to handle this matter of honey being tampered with.

Mr. Arnd—I want to caution people who get honey to have their own driver handle it. I have had lots of honey from a certain party, and in one case all of the honey was out of the one can, and in the other lot there was a leakage. You want to be careful to have your own man handle the honey; if not, the man who is handling it—unless he handles it all—does not know that there is a shortage and he receipts in full. A man did some hauling for me, and he had to pay for one can of honey because he let the railroad men put the cans on; they are foxy; they put on the light weight ones, and get a receipt in full, and that relieves the railroad company, and the teamster has to stand it.

Mr. Ahlers—I believe if a person goes at it in the right way, the railroad company will pay every claim where you can prove a loss. I have a claim right now for \$81.42, and I would not discount that 1 per cent; they will pay it; I may have to wait a month or so. I had one shipment that was stolen, going to Cleveland, Ohio. I had lost part of the papers and the railroad company could not be held. I wrote to the agent and told him that certain papers were missing; I got a claim for \$1.13 just the day before I left home. The railroad paid me the money and it didn't belong to me; I sent it to the party who lost the pail. I charged the railroad company just exactly what I had charged the man for the honey; added the percentage; figured it close; added the freight and the percentage of tare on that one pail, what it amounted to—\$1.13 in all, on a 10 lb. pail, and they paid in full. I have several other claims, and they will all be paid.

Mr. Arnd—But you didn't give them a receipt in full when you received the goods?

Mr. Ahlers—There is the point; instruct your driver, every time, to look at this honey and see if it corresponds with your bill of lading or shipping receipt, and if it doesn't, take your receipt marked "short" or "leakage."

Mr. Arnd—That is all right; the railroad picked up this package, one can entirely gone; the can was there,

but no honey; the chances are the man who carried it on got the honey.

Mr. Ahlers—If you watch those points and are careful, they will pay them every time, and so will the express company. I would like to give them credit where they deserve credit. I have had two express claims paid here in Chicago this winter.

Mr. Arnd—I have a claim against the Illinois Central a year and a half ago, for one box of sections I sent to a customer and replaced them, and I can't get \$2.50 out of them.

Mr. Ahlers—I had the railroad company notify me three different times in New Orleans, when I was there in business, to come and get money they owed me; that was the Illinois Central.

Mr. Burnett—My experience has been that the express companies are the most difficult from whom to get redress. I am talking of comb honey now; they may break the honey away from the wood, so that it is practically all pulp, but if they have not broken the case or outside package they will not listen to a claim of damage. I have had a number of those.

I went through that some 25 years ago, with an agent of the American Express Co. here, and their contention was that if they broke the package, and it let out the contents, why, then they held themselves amenable, but not otherwise.

Now in handling by express, they usually have to do it quite rapidly at stations here and elsewhere, and they handle much more roughly than they do by freight. For many years we have not shipped any comb honey by express, even if it were only a 50 lb. lot or less; we sent it by freight.

Mr. Burnett—I would like to have Mr. Ahlers explain what the nature of these claims were against the express company.

Mr. Ahlers—A party from St. Louis notified me that the box arrived apparently in a very depleted or weak condition—3 combs entirely emptied; I got this letter nearly evening.

Mr. Burnett—That is extracted honey; it is different.

Mr. Ahlers—The express agent phoned out to please give him the address of this party; they couldn't make out the address.

Mr. Burnett—What about comb honey experience?

Mr. Ahlers—In selling comb honey the people will nearly all buy one pound, and somebody will come along and stick their fingers in it and then no one wants it; and if I want to sell it I have to sell it for 10 cents a pound, and it is very hard work to deliver comb honey on the wagon in small quantities; and those same people will buy 10 pounds or more of extracted honey.

Mr. Arnd—I have sold 4,000 pounds of comb honey this year, local delivery, and I never have had any one stick their fingers in the honey. I don't want to be misunderstood; or do not want to be understood as saying that the railroad companies do not pay their claims; I have had some claims put in one day and paid the next; but the railroad companies, as a rule, do not settle their claims very well.

Mr. Ahlers—I shipped 300 pounds to Quincy, Ill., to an agent; the honey arrived in good condition; he paid for it; when he opened up the last 60 lb. box he found a can missing; the space was filled up with sawdust. He said that apparently you could not see that the box had been opened; he told me about it and it made me feel rather blue about it, so I made it up to him on the next order, and I didn't make a claim.

Mr. Burnett—You know it is so easy to get into a misunderstanding; we are talking about two different things. The impression would have gone abroad perhaps if we had not objected to it, that express companies will pay any damage to honey in transit, as a matter of fact they won't, on comb honey, unless they smash the package.

The contents can be smashed; they will tell you, "We delivered the outer package as in good order; we don't know anything about the contents; we are not responsible for them." But the express people will, if they bring in a consignment of comb honey, and it is broken down, and it is evident that it has had unusually rough treatment—they will, as a rule, pay for their damage.

Mr. Arnd—I guess it was about the first of the year, or later than that—about March I should think—the

American Express Co. came up to my place with a couple of crates of comb honey, by express, with charges about \$8.00. I did not know whom it was from; the shipper didn't inform me he was going to send any honey; I didn't order it; I don't handle comb honey, and I rejected it; I could not find out whom it was from. About three or four months afterwards a man wrote me and said, "On such and such a date I sent you two cases of honey; it seems to me it is pretty nearly time to pay for it." I told him the circumstances; that I had rejected it because the honey was leaking, and there was \$8.00 express charges.

Pres. York—It is always best to correspond in advance before shipping honey to a dealer.

Mr. Arnd—I tried to get Mr. Burnett over the wire that day; I wanted to know if he would handle it, but the express company would not wait.

Mr. Wheeler—The comb honey was taken out and the case nailed up again in the instance I spoke of. I got the cases home before I knew it.

Pres. York—We have one more paper or talk from Mr. Wilcox, of Mauston, Wis., on

#### Double Walled Hives, Their Advantages and Disadvantages.

I had a letter from Mr. Dadant requesting me to write this, or if I came, to tell it. I sat down and wrote an article and when I looked at it I was disgusted, and I said that I would be at the convention, and I would not occupy more than three or four minutes.

Another good reason I have for not taking your time is that you know more about double-walled hives than I do. Their advantages are, first, that they are better out-of-doors for wintering bees. It is difficult wintering them out of doors without double-walled hives.

To winter well in our Northern climate, it is decidedly better to use the double-walled hives; they are better for out-door wintering, and in the early spring they are better, as they preserve a more even temperature.

Take the months of April and May; we suffer from cold in Illinois, and severe cold and freezing nights. We cannot build up our colonies readily and well without some sort of protection.

The extreme cold drives them over

the walls of the hives and interferes with the brood-chamber.

These are the chief advantages of a double-walled hive.

There are many ways of making them, as we all know. The style is not to be considered. There are probably some other advantages. The robbing bees in the spring do not enter a chaff hive, or any other hive where they have to crawl from 3 to 5 inches to get inside. You can preserve that long hallway for the entrance by laying a couple of small sticks in the entrance. My chaff-hives were never robbed unless the bees died first.

For people who winter bees in the cellar, as I do, they are too large to carry out and into the cellar. Some of them are so large they would not go through a cellar-door.

Another serious objection is the cost. A chaff-hive or double-walled hive as usually made costs twice as much.

These are the two principal objections.

There is another: They are very inconvenient through the summer season to manipulate. They can be made so that the upper and lower stories will be separate; I have them both ways.

You cannot conveniently tear them out, as I used to tear out either for extracted or comb; for that reason I don't use them, and don't recommend them, unless you are so situated that you must winter bees out-of-doors. Then by all means, you must have double-walled hives, or a substitute for them, as Miss Candler does, and some others.

That is about all I know to say on the subject.

I leave it to you to inform me what you know about it.

F. Wilcox.

Mr. Whitney—I have used nothing but the double-walled hive. There are advantages I think that Mr. Wilcox did not mention. Now, in early season, when you have put on the section-cases, we often have chilly nights, and the bees, while they are at work in the sections, will shrink away from the outside tiers to the center in the single-board hive, but they will occupy the entire section where the walls are double, like those that I use, having a shelf extending two stories. I mean at fruit-blooming time; often up to the middle of June we have chilly nights, sometimes in this Northern climate; per-

haps this is not so in Central or in Southern Illinois, and what I say would not apply to these parts of the State.

Throughout here it is true, and I have had my colonies build up good and strong in the section-cases in the double-walled hives when others who have single walled hives in the same neighborhood would get no work in the sections at all.

One year—a very poor one here in the North—I had then about 20 colonies—22 I think; others in the same neighborhood had many more bees than I did. I secured 900 pounds of good comb honey, and my neighbors didn't get a pound. I attributed it more to the kind of hive that I used than to any manipulation, and, I think, for comb-honey production, there is nothing that equals that double wall.

I could put 3 section supers under the cover of those hives that I used, at a time. Of course, you cannot tier up for extracted honey in them, as you can in single-walled hives unless you put on what is called "cotters," and build them up in that way, and tier up; if you want to tier you have to use additional "cotters" to enable you to build up so as not to have the rain too bad in the hive.

For out-of-door wintering there is nothing equal to that kind of hive, I think, though some, of course, do use the single-walled hive and put them in dry goods boxes, and pack leaves around them, and all that sort of thing—tar-paper, and so on; but if I were going to winter bees out-of-doors I would not think of using anything else but the double-walled hive in this section of the country.

Pres. York—How many people use double-walled hives? [Four.]

Mr. Wilcox—Mr. Whitney has introduced a subject there that is not directly applicable to double-walled hives; I agree with him perfectly. There is no issue to be taken. I simply stated they were better for early spring, preserving even temperature. When I produce comb honey I have a box without top or bottom to set over, resting on the rim to protect them; it makes them double-walled so far as the upper story or supers are concerned. I never put in extra cases before the middle of June.

Mr. Whitney—We were instructed, generally, to put them on as soon as

we see the bees are making light colored comb at the top of the brood-chamber.

Mr. Wilcox—In your locality you won't see that before the 15th of June. I put mine on as soon as the middle of May—sometimes a little sooner.

#### Winter Hive Cover in Spring.

"How long should a winter cover remain on the hive in the spring? How late?"

Mr. Wilcox—It does no harm if you leave it on all summer; it is an advantage in the hottest weather of July or August; a chaff hive preserves a more even temperature.

Mrs. Holbrook—Is not the individual a good thermometer? When he requires covering, is it not a good sign that the bees do? When we need more covering over us, is it not a pretty good sign that the bees should be kept protected?

Mr. Wheeler—I have a little experience that cured me of spring protection.

I never tried it again; it seems to be entirely different from anything I can hear from people who do protect their bees in the spring. I will tell you what it was:

I had one bee-cellar I filled with bees, and had about 100 hives; I used plenty of dry oak leaves and tar-paper. In the spring I took my cellar bees out and they went to breeding; in three weeks time I had a nice lot of young bees hatched. I had heard a good deal about spring protection, so I left those 100 hives standing out there protected—with tar-papers and leaves on, everything, all right. I didn't touch them until the 20th of May; I thought they must be doing all right; according to the bee-papers, they were well protected. So I began at one end, pulling those out there, and they were in just the same condition they were in the fall; I didn't find a particle of brood in May—not hatched bees—no brood. The 100 hives were all alike. They were all in good healthy condition; they bred afterward, but I was one generation behind time. The first of June came; the honey harvest came on, and there were the first lot of bees just beginning to hatch. That cured me of spring protection.

Mr. Whitney—Did the bees fly any until you opened them?

Mr. Wheeler—Sure; had a good, big entrance.

Mr. Whitney—Were there plenty of bees in those hives?

Mr. Wheeler—Yes.

Mr. Whitney—You had too much protection. They had bred up and the combs were empty, were they not?

Mr. Wheeler—Yes.

Mr. Whitney—I had the same experience myself. I found in about 50 colonies that I examined not a single cell of brood or pollen in the hives—not one; I looked them all through—but plenty of bees. I was surprised, and wondered what I was going to do to get those bees to work.

I gave them some artificial pollen and they went to work; they bred up all right, but I made up my mind to this: That I had given them a little too much protection. That they had bred up in February and consumed every bit of pollen that was in their hives; and the bees were simply waiting for something to turn up, or for the spring to open so they could go to work. You had 3 or 4 inches too many oak leaves.

Mr. Wheeler—Fruit-trees were in blossom; they had plenty of pollen; as soon as I took them out of the leaves they went to work.

Mr. Stuebing—Do they need protection when they have lots of honey?

Mr. Whitney—The bees must have lots of honey, and good honey; then they don't need protection.

Mr. Wheeler—One point I made up my mind to: I really believe the Old Sun is a good deal better protection: standing out in the sun they don't need that roof over them; the sun is better than all the protection you can get.

Maurice Dadant—We had a little experience last winter with protection. We have double-walled hives, and we have always been protecting the bees through the winter, with leaves all round. I guess there was too much duck hunting last fall, and we left one apiary out without any protection; something like 80 colonies in the yard. We lost 3 out of the 80. In this one that was not protected we lost 23. It seems to us protection was what did it. We got them all packed away this year before the first of December.

Mr. Huffman—I believe I can beat Mr. Dadant. I did the same thing the winter before; I wintered out 30 colonies without any protection, and they all came through but 2; so last winter

I had a yard of 38, in double-walled hives, full of honey; I was down here to this convention; we had a snow-storm after the convention; they stayed out all winter; out of 38 I had 14 last spring.

Mr. Wheeler—Miss Candler has something along that line, about protected hives covered with snow-drifts.

Miss Candler—I protect my hives with black paper—tar-paper—and the snow, of course, warms that paper through to the hive thoroughly; but the snow was so deep that it simply covered the whole hives so that they could not be seen, and in the spring I lost 40 that were simply covered with ice, so of course they died; they smothered.

#### Long-Lived Queen-Bees.

"What about long-lived queens? What is the longest life of an active queen you have known?"

Mr. Wilcox — Queen Victoria! (Laughter.)

Mr. Niver—One queen I had 5 years.

Pres. York—How many have had queens that were active at the age of 5 years? Raise your hands. [Two.]

Mr. Anderson—I have "one" that has been active 52 years!

Mr. Wheeler—I suppose the life of a queen depends upon the amount of labor she has to perform. If we have a succession of poor seasons that queen will live longer than though we have a good honey-flow; so it is pretty difficult to tell what the life of the queen will be. The queen might be considered like a plank road—it wears out. A queen that does good work, I don't believe will live much over 2½ years, the average of a good queen.

Mr. Anderson—We have a gentleman here who has a queen 7 years old, and she did good work the past year.

Mr. Duff—I have a queen, at the present time, 7 years old—in a 10-frame hive—and I think that colony is in as good condition as any in the yard. Last spring there was a man in the yard who examined the colony, in June; he found it to be the best in the yard. I got it from Mr. York, about 5 or 6 years ago; I got 2 breeding queens; I left it in his hands to select the best stock, and he got me the two breeding queens; I clipped the wings of those queens, the only ones I ever clipped.

Mr. Smith examined them last year and he can testify, it was at least 50 per cent better than any other colony in the yard, and she is there today; the other queen was no good from the time I got her.

Mr. Wheeler—As to that one particular colony. Do that queen's queens do as good work? Were their colonies built up as strong?

Mr. Duff—Yes, without exception, every year.

Mr. Wheeler—Then I think you ought to breed queens.

Mr. Duff—I have done so; every year her colony has been better than any other colony. The past year, when I didn't get any surplus honey to speak of, I got surplus honey from that colony.

Mr. Wheeler—I had a letter from a gentleman about a certain queen. I wrote to him to re-queen his entire apiary from that queen; she was the best queen he had; her hive was overflowing all the time; he said, "I have 50 colonies, and she is the greatest hustler you ever saw."

I would breed from that queen if I were in your place, Mr. Duff.

Mr. Arnd—How many queens did you rear for your own use from that queen, Mr. Duff?

Mr. Duff—About 40; that is all I ever reared in one year.

Mr. Smith—I believe most of the members present will give me credit for making an investigation if I go after it. I believe an investigation that would satisfy me would satisfy most of them—an investigation as to facts. I discovered this queen, and Mr. Duff told me about what her record was, and he asked me to see our worthy President to verify her age. Between the two gentlemen, they satisfied me that the queen is 7 years old this year. I wanted to buy the queen; I could not buy her; the best I could do was to arrange to get larvae to rear queens from. I made that arrangement, because, for me, I would rather pay \$100.00 for that queen to breed from than to have a man send me 50 other queens for nothing, that I didn't know anything about. I went through every colony to see what the condition of this colony was, with relation to the other colonies in the yard that had had the same treatment apparently. All of the colonies were put up for the winter. She had received



no better treatment than the others; in fact, I didn't think she had received as good treatment as she might have received, but the colony, to my best judgment, was about twice as strong when I examined it as any other colony in the yard, and I believe I had something to do with impressing on Mr. Duff's mind the value of that queen. Am I correct, Mr. Duff?

Mr. Duff—Yes.

Mr. Smith—I watched that queen all summer. I got queens from her; I have a queen from her 3 years old. I would not take \$50 for that queen, because I believe that natural laws work the same through all nature. I talked with a professor of our State University; he showed me what that law was. He said the best illustration they had—he showed me two heads of wheat, one was bearded wheat, the other was a smooth wheat; he said he crossed those two grades of wheat; two of them were bearded; two of them were smooth. Now, according to the law of nature, this head of wheat here is smooth; it is a full brother or sister to this one; they are both smooth; one will never produce anything else but smooth wheat, the other will produce both smooth and bearded.

Here are two bearded heads of wheat that came from that crossed one; they will produce both bearded and smooth, and the other will always produce bearded. That is the law of descent. One will always produce bearded; the other will always produce smooth; and the other two will produce both. The relation is the same; they came from two heads of wheat.

I asked him the principle about the law as to the heredity of bees; if they could breed for longevity; he said "Yes." I said, "Has breeding for color anything to do with longevity?" He said, "No."

He took me over to where there was some corn, and said, "Here are two stalks of corn. Their ancestors 13 generations ago came from the same hill; this one's ears are down here; the others are up here—about 3 or 4 feet apart. We took those from the same hill; we bred down with the one that was lowest in the hill, always selecting the lowest ears, for 13 years; the one that stood highest we selected from that, and always selected the highest,

until now we have a general average of both kinds of corn, some 3 or 4 feet apart, established. That was done according to law."

"As to color," he said, "that is an entirely different matter; we can take that lower ear of corn, by cross-breeding and selection we can get any color we want. The color has nothing, absolutely nothing, to do with the quality. I have never," he said, "bred bees or livestock, but when you come to color, you can retain all the other qualities and get any color you want."

Dr. Miller told us yesterday how valuable a few days in the live of worker-bees are to the honey producer. I believe we can add a great many days to the lives of bees, and that is what we are at work on; that and practically that alone. I will sacrifice a colony for honey and for anything else to get that quality.

I believe a long-lived bee has the hustle and energy to it to do the work, and I believe it is inherent in the bee to insure honey. They will all gather honey if they have the energy, and if if we get qualities that will stand for long life, we will get all the other qualities.

I expect to have an apiary next year without a single queen in it under 4 years old. To show you the value that some of the bee-breeders put on longevity, I wrote to one of the leading queen-breeders of the world and asked him if he could sell me a queen 5 years old. He said, "I have not one in my yard over 2 years old."

I will give you \$10.00 a piece for all 5-year-old queens that you can furnish me.

I have very few answers to letters that I sent out, saying they had queens over 3 years old. One man said he had one 4; some 2; one breeder said he had at one time reared a Carniolan queen until she was 7 years old. It seems that very few of them pay any attention to longevity.

We are requeening every year. We should give the matter of increasing the longevity of our bees most serious attention. The queen of Mr. Duff is an Italian queen.

Mr. Wheeler—Mr. Duff, what is the condition of the other colonies from which you have requeened from this queen? Are those equally good, with this 7-year-old queen, or are they common, ordinary colonies of bees?

Mr. Duff—I would say they are a little better than the average, some of them. I don't think, so far as I can judge, they are as good, but almost as good; very nearly as good; I will be able to tell more about it next year.

Mr. Wheeler—I was wondering how long you have been requeening from this queen.

Mr. Duff—This year, from 40 to 50. Of course I have reared previously 6, 8 or 10, but none have ever turned out as good as she did.

I don't know from whom Mr. York got this queen.

Pres. York—I think I know where she came from.

Mr. Smith—Mr. York told me where she came from. I wrote to that breeder and he said he had nothing over 3 years old. This queen was an accident. That is, she was purchased from a good queen-breeder, and has been kept all these years, and that is how the queen has been discovered.

Mr. Saxe—Don't you think you might get a queen like that, and not get another? I remember one time when I was a boy, I had the finest pointer dog he was as smooth and slick a pointer there was in our country; he was an offspring from a setter and a pointer; as you ever saw. We bred him to another pointer, and that other one was partly setter and partly pointer. I think in bees it is the same. Is there anything in constantly breeding from the same drones in the same yard, or, rather, is it better to breed from some other yard? Some of the finest stock we have in the world are inbred stock, but they don't average that way.

Mr. Fuller—About future breeding of these long-lived queens, with reference to the effect of the drone on the life of the progeny of this queen, I would like to ask this question—

Mr. Smith—I will state my object in asking for these long-lived queens. It was so I could have drones from long-lived queens to mate with queens that come from long-lived stock. I have arranged with all the bee-keepers within two miles of me that I know. I live in the city, in a very thickly settled portion of the city, near a park of 600 acres, and my bees get all their honey from that park, practically. The bee-keepers have agreed to trap all of their drones—keep traps on their hives all summer, if I will rear some

drones from these long-lived queens. I have a theory that I evolved from the study of all the efforts I have heard of, with regard to mating queens, and it is this:

I have four walls, 40 feet high. I am going to put my queen colonies with virgin queens in on the ground. I have yet to determine where I will put the drones, but somewhere between the ground and 40 feet high. I don't expect to have any queens in my yard under 4 or 5 years old. I believe when the queen goes out to take her wedding flight that she will mate with some of those drones, especially if there are none other within 2 or 3 miles. Whether that succeeds or not, I don't know; it has to be tried out. It is going to cost something. I shall offer no queens for sale until I know in reason that it works, and then probably not offer them for sale, for I doubt if the bee-keepers throughout the country would pay me for the time and trouble that it would take to purchase queens in that way.

There is one man who has a queen that he has advertised very largely; he says she is 4 years old, and not for sale. The best I could do with him was to make a contract to furnish me a few dozen virgin queens that I intend to put into my yard and let them mate with those drones, I don't know whether I can come to an agreement with Mr. Duff to get the use of that queen to rear drones or not. If I think more of her than he does, I will get her, provided I can raise the price.

Dr. Duff—I think I will keep that queen as a "keep-sake." You are entirely welcome to what larvae you want from her.

### Weak Colony.

"When shall a colony be called weak?"

Mr. Wilcox—A weak colony is one that has less quality than they ought to have at that particular season of the year. I use the word "weak" and "strong" with reference to the number of bees in the colony.

### Sour Honey to Feed to Bees.

"Can sour honey be used as bee-food?"

Mr. Wilcox—Yes, if not too sour; the spring is the best time of the year.

### Stopping Up the Bee-Escape.

"Has any one had experience with bees stopping up the bee-escape before all have left the super?"

Mr. Smith—I had; I don't think there were 10 bees left in the super until the bees clogged the bee-escape; the bees above nearly all died. There seemed to be as many bees in the super when I found them; I supposed they had all gone below; I found bees in the bee-escape, all clogged up.

Mr. Wilcox—Very likely it got clogged up with dead bees more than anything else.

### Clipping Queens.

"How many clip queens?"

Twice as many clip as do not.

"How many, living in cities, clip queens and how many do not? How many in the country or suburbs clip queens, and how many do not?"

Mr. Brooks—I would like to ask Mr. Duff why he does not believe in clipping his queen's wings?

Mr. Duff—I simply do not practice it; I prefer to look at them with their wings; that is about the only reason.

Mr. Fuller—There are reasons for a city man clipping the wings of queens that may not exist in the country or suburbs, especially a man not at home. I know some men in the suburbs who are rearing queens for a pastime, for recreation. Should a queen issue, unclipped, and swarm, the chances are there would be a vacancy in the home apiary. In the country, or suburbs, where the people are around to give the alarm and take care of them, it may not be so necessary. I believe it is the custom, as a rule, for many bee-keepers living in cities to clip the wings, and that is forced by necessity.

Mr. Saxe—The last queen I got I put in the hive; I was busy and did not take the cage out for about 3 or 4 weeks. I am pretty busy in town, and did not get home until late; she was in there 3 weeks; I opened the hive and expected to take the cage out empty, and the end was solid with dead bees, and the queen was in another end and alive; is it possible the bees fed that queen and kept her alive? I took her out, and she buzzed around in front of the hive, and all the bees buzzing around piled in after her.

Pres. York—Perhaps the other bees fed her through the wire-cloth.

### Grading Comb-Honey.

"When selling white comb-honey it is advisable to put the following sizes in one grade: All combs weighing  $13\frac{1}{2}$  ounces and up?"

Mr. Wilcox—I have purchased large quantities of comb-honey during my lifetime. I make it a rule to crate it, of course, according to the distance I ship it; that to go to a long distance must be well crated on all four sides; that which is to go nearer, I sort out; that to go near home, I crate it differently.

Mr. Fuller—I don't know about this subject, but I am going to talk on it. Does it not make a difference whether that honey is sold to the commission man, or sold to the consumer? Is honey re-cased after it reaches the hands of the commission man? Does he use the same casing that comes from the producer when he turns it over to the consumer or retailer?

Pres. York—I would say they do not re-case it.

Mr. Niver—I have had considerable experience in the casing of honey years ago when I was a comb-honey fiend, but I have reformed since. I insisted that as the grocer sold by count, the producer should pack it especially for that idea, and that comb-honey should be very nearly alike in one case and another; there should be no packing of fancy honey and No. 2, all in the same case, because it bothers the merchant. Merchants sell by weight, except a few. I insisted that the way to do it was to sell by count; and so case. They formed a kind of company in New York City and put honey in my hands to sell down in the Pennsylvania coal regions; they all brought it in to our warehouse, and I cased it on that system, and that system has stayed there ever since. The merchants insist upon it; when they buy fancy honey, they want it all fancy. I see the same thing is done in Denver; they quote honey that way, by the count and not by weight. It is much handier for the grocer.

Mr. Wilcox—I really feel, and have felt very strongly, that the bee-keepers who sold by count, the only object they have in selling by count is to prepare the way for somebody to cheat. If a retailer buys by count, he will have something he can buy by count, and sell it for a pound. A section should

be as nearly a pound as you can get it, without exceeding that amount.

Mr. Fuller—Does not the retailer sell entirely by count?

Mr. Wilcox—The retailer usually sells them by section and he buys them by the pound; that is the usual rule.

#### Divisible Hive for Extracted Honey.

"Has the divisible hive any advantage over the standard Langstroth hive for extracted honey?"

Pres. York—How many think they have—raise hands? (One.) How many think there is none? (One.)

Mr. Niver—I asked that question,

hoping some one here knew something about divisible hives? I don't.

Mr. Wilcox—It is no benefit for extracting purposes, but for an entirely different purpose, there is a benefit. I found, by experimenting with my bees, that they were inclined to winter better and build up quicker in spring in the divisible brood chamber. I don't know, taking it as a whole, that they were of any advantage, but at the time Mr. Heddon invented his hive I gave it a thorough trial, and the bees would always swarm earlier, and build up earlier in the spring.

The convention adjourned at 3:30 p. m., to meet at the call of the Executive Committee.



NORTH PART OF SECRETARY STONE'S APIARY—LOOKING NORTH.

In foreground shows the Concrete Hive Foundation—on wheelbarrow—and under bee-hives in front row. Against the side of wheelbarrow is leaning the Box-cover with bee escapes; both of which the Secretary described at the National Convention at Albany.

# OFFICIARY

OF THE

## National Bee-Keepers' Association

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1910

### EXECUTIVE COMMITTEE

President—GEO. W. YORK, Chicago, Ill.

Vice-President—W. D. WRIGHT, Altamont, N. Y.

Secretary—LOUIS H. SCHOLL, New Braunfels, Texas.

Treasurer and General Manager—N. E. FRANCE, Platteville, Wis.

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### BOARD OF DIRECTORS

#### Term Expires in 1911

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R. C. AKIN, Loveland, Colo.

#### Term Expires in 1912

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#### Term Expires in 1913

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#### Term Expires in 1914

JAS. A. STONE, Springfield, Ill.

O. L. HERSHISER, Kenmore, N. Y.

H. A. SURFACE, Harrisburg, Pa.

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### ELECTION OF OFFICERS AND DIRECTORS

November 30, 1910

President—GEO. W. YORK, Chicago, Ill.

Vice-President—W. D. WRIGHT, Altamont, N. Y.

Secretary—E. B. TYRRELL, Detroit, Mich.

General Manager—N. E. FRANCE, Platteville, Wis.



HON. N. E. FRANCE.

## REPORT

OF THE

FORTY-FIRST ANNUAL CONVENTION

OF THE

# National Bee-Keepers' Association

Held in the Common Council Chamber in the  
City Hall, ALBANY, NEW YORK

Wednesday and Thursday, October 12th and 13th, 1910

By permission of N. E. FRANCE, Gen. Mgr.

On Wednesday, October 12, at 10:30 a. m., the President, Mr. George W. York of Chicago, took the chair and called the convention to order, and at his request Mr. Morley Pettit of Ontario, Canada, opened the proceedings with prayer.

Pres. York—I am delighted to stand before such a body of men at our opening session; I really didn't expect as many at this time; I think by the afternoon or evening we will be

crowded out of this room. It shows that the East is pleased to have the National Bee-Keepers' Convention again in her midst. I am sure from the start we are going to have a great meeting.

A member — Mr. President, you omitted one thing just now. That is, the ladies.

Pres. York—I have often heard it said that the "gentlemen embrace the ladies," so perhaps that will cover it!



Mr. France then made the announcements.

The President appointed Messrs. J. L. Byer of Canada, O. L. Hershisser of New York, Charles H. Weber of Ohio, and Henry C. Dadant of Illinois as a committee to distribute the numbers, and get the names of the members in attendance.

Pres. York—We will bring up the question of committee just before we adjourn for dinner. We ought to have several committees, but we will give the ladies the honor this time, and begin with the paper, "What a Woman Can Do With Bees," by Mrs. S. Wilbur Frey of Sand Lake, Mich. In the absence of Mrs. Frey, I will ask Mr. Angus, our reporter, to read this paper.

Mr. Angus read the paper as follows:

#### "WHAT A WOMAN CAN DO WITH BEES."

It seems I have a rather hard subject to write on. About all that I can do is to tell you a little of my experience, and express a few of my views on the subject.

Bee-keeping is a business that is seldom carried on on a large scale by ladies, although I know of no business that a lady can make a greater success of than bee-keeping, provided she is adapted to the handling of bees.

When I was at the convention in Lansing, last winter, I met a Michigan lady who was caring for and managing 160 colonies, mostly for comb honey. She was very enthusiastic, and said she was securing good crops. I know of only two others who are managing large bee-yards.

There are several ladies in our locality who own a few colonies of bees. They are successful and enjoy the work. They find both pleasure and profit in their small yards. The bees not only furnish honey for their tables, but furnish considerable spending money, besides.

Last, but not least, swarming time with all its noise and excitement is a day that is eagerly looked forward to by both the children and the owners of a few colonies. It is quite different with those that count their colonies by the hundred.

I regard bee-keeping as a healthy

business. I do not know that I was ever laid up a day with sickness when it was necessary to do bee-work. You get enough fresh air and riding between yards to give you an appetite, and enough stings to cure your rheumatism, if you work bare-handed, as I do.

If a lady makes a success of bee-keeping on a large scale, she must not expect to have much time to sit in the rocking chair, swing in the hammock, or write long articles for the bee papers. When the bees are working, "the automobile would be just the thing for out yards." On the other hand, she must adapt herself to circumstances, and work early and late, if necessary, in order to secure a crop or control swarming. She will need to be a good horse teamster, as there are many pleasant rides both morning and evening, if she is well located with out-yards.

Bee-keeping is fascinating to most people who are able to handle bees. It is like a continued story—there is always something just ahead that you want to learn about them, or an experiment that you want to try. I am confident that there are a great many ladies that are better able, and better situated, to handle large bee-yards than I, if they only had the necessary knowledge and a love for the business.

I have taken care of bees for the past 22 years. I am the mother of 3 children, the youngest being now 8 years of age. My time has been occupied with various duties to such an extent that it has been impossible for me to give more than half my time to bee-business during the working season. With the little time I have been able to devote to the business, I have taken care of 150 to 200 colonies the largest part of the time during this period of 22 years. I have never failed to secure a paying crop in the poorest season. I am a producer of comb honey. You all know it is much easier to produce extracted, although in my experience the section-honey pays much the better.

Order is one of Heaven's first laws. In no place does it need to be applied more than in bee-keeping. Everything that you do must be in apple-pie order or all your efforts will have been in vain.

This is my motto: "Never put off

until tomorrow what can be done today."

MRS. S. WILBUR FREY.

Sand Lake, Michigan.

Pres. York—This paper is now before you for discussion. I think it is an opportunity for the ladies; if they have anything to say, now is their chance. How many ladies here keep bees? Raise your hands.

(In response to this request five ladies raised their hands.)

Pres. York—How many think that bee-keeping is a good business for women?

(In response to this a number of hands were raised.)

Mr. Stone (Illinois)—It said in the paper that comb honey paid better than extracted. I would like to see how many think so.

(The raise of hands showed that the convention was nearly unanimous for extracted honey.)

Mr. McEvoy (Canada)—I think you can get more out of your bees by running for both, as you can get extracted honey from some colonies that will produce no comb honey at all.

Pres. York—The next paper is entitled "Bee-Keeping as a Business," by W. B. Cavanagh of Hebron, Ind.

This paper was read by Mr. France, as follows:

#### "BEE-KEEPING AS A BUSINESS."

There is some important feature embodied in every line of business which attracts the man engaged therein. Through this law we are able to judge, and with a fair degree of accuracy, the calibre and character of the man, by the business he represents.

What, then, is the bee-keeper's character, and what has caused him to engage in bee-keeping? The business is no get-rich-quick scheme; neither is it a life of ease; so there must be attached to it other attractions beyond mere monetary profit. Is it not due to the bee-fever germ which successfully thrives only in the lover of Nature? This question I will leave for each member of the convention to decide, while I mention some other features of our craft.

First, bee-keeping is a business based on Nature's bountiful store; the flowers whose nectar secretion is in-

fluenced by rain, sunshine and atmospheric conditions. No wonder, then, that our business claims the class of men and women who prefer hard work, attended by health and peace of mind, in preference to business and professional life in cities. No wonder that bee-keepers as a class are honest, industrious and persistent. Their business requires and demands it. The life is free from temptations of graft, and near-lies, so common in other commercial pursuits. The profession draws one into close study and relationship with Nature, demanding the deepest study and closest observation for real success.

A good business must develop every quality of man that is worth developing, and I believe that if bee-keeping fails in this, then the man is not living up to the possibilities of the business.

The bee-keeper must be able to keep in harmony with his neighbors when his bees are acting the reverse. He must work, watch and wait during a greater part of the season, content to have the external appearance of the hives remain unchanged, yet realizing that there will be a certain reward in profits later. He must be capable of quick decision in minor matters and of sound judgment in all decisions. Mechanical ability is demanded in extensive operations in every line of equipment; the ability to handle and select hired help, to lay out work economically, to avoid unnecessary labor, and to reduce operating expense by combining operations in the apiary.

Then there is a purely commercial side to bee-keeping—the buying and selling of bees and the marketing of the products. All taken together, and successfully conducted, combine to develop one into a fully rounded character, and a well-balanced business man as well.

Is bee-keeping financially profitable? Yes; I consider it so, if a good bee-keeper and a good location get together. Farmers cannot grow corn on the Sahara desert, neither can a bee-keeper produce honey where flowers do not yield it. As a bee will seek a nectar-laden flower, so will a true bee-keeper seek out a location where Nature's sources permit of profitable apiculture. A man who has

failed because his location is poor lacks a true bee-keeper's perseverance if he permits any ordinary difficulty to prevent his moving to a better locality. A well-known author has placed the man second to the location; but I contend that a real, live bee-keeper will seek out the necessary good location, and stock it with bees, regardless of difficulties.

Bee-keeping requires comparatively small capital, but large experience. In fact, the bees and equipment are as mere tools in the hands of an expert, which, properly handled, produce a honey crop. They are as delicate machinery, easily gotten out of order if ignorantly managed. An experienced apiarist will rapidly increase his apiaries from nothing to an extensive business. A novice will, through ignorant management, reduce the property to a pile of empty hives in a single year.

Is it not plain to all why bees are rated as a poor security, and why the business is considered hazardous by many? Simply because everything depends on the man in charge.

The future of bee-keeping appears bright with possibility. Our laws are recognizing the industry as never before. Their aid is material in both pure food requirements and in ridding our apiaries of foul brood. Most excellent publications afford the apiarist a view of his brother's methods, and of new inventions not a few. The large bee-supply houses have sought out the best in equipment, and have contributed a world of unappreciated good to the bee-keepers by establishing a standard of hives, supers and honey-packages.

Last, but not least, we have our State and National conventions which are taking an interest in the much-neglected matter of marketing. Bee-keepers are recognizing the intense and commanding importance of quality relative to the demand for honey. Steps are being taken to place this superior article of honey before the consumer in an attractive form. So long as bee-keepers will keep the standard of Quality where it should be, there need be no fear but what consistent prices will be forthcoming.

In conclusion, let us co-operate to help one another, not merely in the matter of establishing prices, but in

methods, equipment, new inventions, and locations. Let us live up to the Golden Rule, and give freely to the bee-keeping fraternity our mite, that others may be benefited thereby, knowing well that our very success was due to following the teachings of others. By so doing we shall place bee-keeping on a still higher level, and we ourselves shall have performed at least a part of the duties the Creator has allotted us.

May our efforts be guided by a higher motive than mere monetary gain, remembering that while our business career is necessarily brief, our good and useful deeds shall far outlive us, to go forth and lighten the burden of future generations.

F. B. CAVANAGH.

Pres. York—This subject is now before you for discussion. What have you to say about it? How many here have tried bee-keeping as a business?

(A large show of hands was given.)

Pres. York—I won't stop to count them. I should think there are thirty or forty. Is there any criticism of the paper, or any further suggestion?

Mr. McEvoy—I think that is one of the best papers I have heard read in a long time. (Applause.)

Mr. Dooly—I have been keeping bees for thirty years, not as a business, but as a diversion, and my success has been principally in persuading people to keep a few colonies of bees for the delightful addition they will have on their table, but chiefly for the fact that it brings them in close contact with Nature; and it will give them the true principle of the economy of life, that no man liveth to himself or dieth to himself. The bees, as we all know, live for the others in the hive. The body is the greatest thought in the mind of the bee. It has been a great delight to have many people tell me of the great enjoyment they have in keeping bees, and in keeping in touch with Nature.

Pres. York—Let us all try to keep to the subject, "Bee-Keeping as a Business."

W. L. Coggshall (New York)—I can only say that the paper was well written and well put in; it is a matter of experience; that is what tells in all such matters. A man inexperienced can't very well take care of bees on a large scale successfully.

N. D. West (New York)—Mr. Coggs's experience tells him that, and the experience of a good many others is about the same, only they do not realize so much in the financial line.

Mr. Byard (Vermont)—I would say that bee-keeping as a business, if properly handled, will give a good return for the money invested, and I think there is nobody, who will make it a study, who need be afraid to go into it; at least, that has been my experience. I like outdoor life. I have given up other things in place of it, and I am very well satisfied.

Mr. McLachlin (New York)—I have been hoping to hear from some of these men that keep five, six, seven or eight hundred colonies; they don't seem to speak. I have 140 colonies this year, and I started with 80; I have taken from that 80 a thousand dollars worth of honey. I am running for business entirely now, having learned how to do it, and with 140 colonies, with the same conditions next year that we have had this year, I expect to clean up \$2,000. What better business do you want? That is comb honey entirely.

W. L. Coggs—He may expect it, and he may be disappointed in a poor year.

Mr. McLachlin—When I came and told my daughter I had a thousand dollars worth of honey out of the hives I thought she would faint; she said, "I don't believe it." I said, "You will see." My son came home and said, "You are feeding your bees out of season." That is another mistake. I commenced in season, and I disappointed my son, who is a bee-man, and I think I disappointed our inspector, Mr. Wright. He inspected a hive up there, of black bees, and advised me to re-queen and put in the Italians. That same colony has put up 165 pounds of comb honey this year.

O. L. Hershiser (New York)—Every time we have already good reason for honey we get a good crop of bee-keeping prophets. I wouldn't advise people, generally, to place too much stock on a real good honey-flow in any special locality. I think we ought to count on some of the failures. I have seen good honey-flows and have been greatly encouraged, and some-

times they have been followed by one or two years of discouragements that would "down" a good many people; but I always remember the good seasons are going to come by and by and I keep preparing for them. A person that has been at the business a good many years knows that those things come when the season is good, and when the season is bad we have a lot to overcome, and we have to have courage to pass over them.

L. C. Root (Connecticut)—That is very wise advice that has just been given. We had a long experience particularly in the supply business, and that is one thing that it seems very hard for a dealer to impress a purchaser with, the fact that usually the time beginners commence in the business of bee-keeping is the very time they should not commence. When you have a very poor season naturally the people that are thinking of going into the business say, "I don't think I would; it is risky business;" then when you have one good season they will say, "This looks better;" and they have another good business, and they will say, "I begin to like this business, and I am going into it." So this is good advice that was given, and beginners should be taught this lesson. Of course the supply dealer has this to say to them, "I am glad to sell you bees just at this time, but it is not the time for you to buy." Particularly do I say that when they are thinking of going into it largely. People say they are tired of their business, and they thought they would start bee-keeping; they thought they would start with 50 colonies. It is always a mistake to do that. Some times you find them so extremely ignorant in regard to the requirements. For instance, think of this: a New Yorker one time wrote to us when I was in company with M. Quinby, that he was tired of his business; he thought he would go to the country and buy a little place and begin keeping bees, and asked what we would charge him for a pair to begin with! (Laughter.) He told me he was going out of the mercantile business. I told him I was tired of the bee-business, and thought I would embark in the mercantile business, and if he would write and tell me how to embark successfully in the mercantile business I would tell

him about the bees! I never heard from him again.

W. D. Wright (New York)—I did not recommend the Italian bees for the sake of Mr. McLachlin getting more honey, because I know occasionally the black bees will put up a nice quantity and a fine article, but it was on the score of the bee-disease which is approaching his territory. There is too much difference, as all those know who have had experience, between the Italians and blacks and hybrids, as regards controlling the disease of black brood.

J. E. Crane (Vermont)—There are one or two matters in Mr. Cavanagh's paper that it would do well for us all to remember. One that struck me especially favorable was that the bee-keeper who would succeed in business must seek out a location where honey was to be found, not plant corn in the Desert of Sahara. That is an exceedingly important point. Another, this, perhaps, he didn't mention, that it might have been well for him to have mentioned, and that is that it requires a great deal of courage and faith to keep bees and make it a business success, for we have just as many seasons of failure as of success. Last year (1909) was a season of failure with us; we got enough to pay expenses, and not very much more. If we hadn't had something else except honey, I don't know but what we would have had to apply to the town for assistance or live on our credit; but I had faith in the future; having kept bees for more than 40 years. I had faith that the future had good things in store for us, and when the winter was past, and the bees built up rapidly, I knew there was just one danger that was likely to befall us, and that was starvation before clover came, consequently I anticipated we would have to feed, and we were prepared for that with barrels of sugar and hundreds of pounds of honey, and when it went well into June, and still the bees were starving, or ready to starve, if we didn't feed, the clouds hung over very dark and heavy. We persisted until the clouds broke away, as they did on the 13th of June, and in ten days we were taking off surplus honey, and after five weeks they had stored us somewhere from 35 to 40 thousand pounds, or in that

neighborhood; and two-thirds of it comb honey.

J. J. Hurley (Canada)—I think this question is perhaps one of the most important that could come before a gathering of this kind—bee-keeping as a business. The assistance we are receiving from our various governments, state or provincial, is for the purpose of developing bee-keeping as a business, and I think we cannot use a convention of this kind to better advantage than to impress upon all those who are outside the profession, the advantages of bee-keeping as a business. I know farmers who are working 100 acres of land who are making no more than a bare living, and who, if they had 100 or 200 colonies of bees, would make a better living than they are now making. There is a gentleman living a short way from my town who is anxious to sell his farm; he has 130 acres of one of the finest pieces of land I think I ever saw; a beautiful house, beautiful barns, and two magnificent orchards; he says he would sell for \$10,000. I told him that his land was worth twice the amount; I valued his orchards at \$6,000; his buildings were worth at least \$5,000. I said, "If you sell your farm for \$10,000 you are giving your land away." I said, "I would willingly pay you \$10,000 for your farm; I could put 300 colonies of bees upon it; I would cultivate your orchard; I would make five or six thousand dollars a year off of your place and never put a plow to it, and could do it practically without taking my coat off." This man said he couldn't get help; he said he was working himself to death, and he was practically a slave to that farm, and his wife also in the house, and the result was, instead of his owning the farm, the farm owned him, and he was getting nothing but a bare living off it, after striving and working hard. The fault was, the man didn't know his business; he didn't know how to work the farm; he had an enormous amount of capital invested in that farm, but he didn't know how to make use of it, because he was confining it to his own labor. That is a mistake. The man who is going to make a business go is the man who can use the labor of others, and who can direct it intelligently. So if he and thousands of other men like him could

only grasp the fact that bee-keeping in conjunction with a farm of that description would practically place him in the position of a gentleman during the years that he would be making a fortune, we would perhaps be able to develop bee-keeping as a business to a much greater extent than we have developed it. I hope the results of meetings of this kind will be to spread abroad the idea of bee-keeping as a business, as a legitimate business, a clean and dignified business, a business as legitimate and refined as any business in the mercantile class or in the manufacturing class. There is no doubt about that.

E. Davison (Kansas) — We have been hearing from various states; I suppose it would be well to hear from Kansas. It has been about two weeks since I left my home; I have been wandering around over the country a good bit between here and my State, and I think that I have learned a lesson. I have seen a great many things that I didn't know anything about. I have seen the vessels on the Lakes, and seen the men handling them, and I have been in some of the manufacturing establishments, watching the men at work there. I didn't know anything about any of those things, and I said to the people that were with me, "I don't know a thing about this, but I know something about bees because I have made it a study." This thing has impressed itself upon my mind, that for a person to be successful in any thing he has to be a specialist. A person to be successful in the bee-business has to make it a study. There are a great many people who would like to engage in the business, and I know a few that engaged in it that have not informed themselves. Now, the thing for any person to do that is going to engage in it—I suppose it would be proper to talk to beginners or those thinking of going into it—the first thing for any person to do is to get all the reading matter they can. I wouldn't advise them to read everything, but to read after the masters. We have got masters in the bee-business; they are the kind of men to read after, and I would advise them to read something of that kind first, and then get the bees and go to practicing, just as a doctor would read medicine and then go to

practicing; or anything else. I know a person can make a living out of bees, but the first thing you have to do is to get a location. You may understand your business ever so well, but unless you have a location you will make a failure of it, or a partial failure. Your location must be right; and then get all the bees you can handle, and any person can make a little out of the bee-business.

Mr. France moved, seconded by Mr. Wright, that the President appoint committees on rules, resolutions, and nominations. (Carried.)

#### COMMITTEE ON RULES.

Pres. York appointed as the Committee on Rules Messrs. Crant (Vermont), West (New York) and Stone (Illinois).

Pres. York stated that he would appoint the other committees later.

The convention then adjourned, to meet at 1:30 p. m.

#### FIRST DAY—AFTERNOON SESSION

##### COMMITTEE ON RESOLUTIONS.

At 1:30 p. m. Pres. York called the convention to order, and appointed as the Committee on Resolutions Messrs. O. L. Hershiser (New York) chairman, E. L. Hofmann (Minnesota) and J. L. Byer (Canada).

##### REPORT OF COMMITTEE ON RULES.

Mr. West presented the report of the Committee on Rules as follows:

1. Paid up members only should take part in discussions unless called upon by the President or voice of the convention.
2. Once speaking on the same subject only, except by request of the President or voice of the convention.
3. The president shall be judge of the time to be spent in speaking by any member.
4. The convention will be controlled by Roberts' Rules of Order.

(Signed)

J. E. CRANE,

N. D. WEST,

J. A. STONE.

Committee.

On motion of Mr. Cyrenius, seconded by Mr. Davenport, the report of the Committee on Rules was received and adopted.

Pres. York called on Mr. J. L. Byer of Mount Joy, Ontario, to read his paper, entitled, "Extracted Honey—From Nectar to Market."

Mr. Byer—I assure you it was with a great deal of diffidence I consented



to write a short paper for this distinguished body of bee-keepers. I believe our program calls for a five minute address or paper on this subject. I think every one will agree with me that if you try to boil down your remarks on extracted or comb honey to a five-minute paper, you will be at a loss to know exactly what is of benefit to bee-keepers.

#### "EXTRACTED HONEY—FROM NECTAR TO MARKET."

When receiving the first intimation from our secretary that I was expected to say something on the above subject at this gathering of bee-keepers, I remarked to a friend that it was an old and very common-place theme—one in which it would be very hard to bring out anything new, particularly so, as nearly every issue of our different bee-papers have articles bearing upon this line of thought.

My friend retorted that this was the case with almost any phase of the industry at the present time, and that it was only by "keeping eternally at it," that any advancement would be achieved. With this thought in view, and with little hope of bringing anything new before you, I shall briefly outline a few essentials that I have found by actual experience to be necessary in the production of a good article of extracted honey for table use,—indeed, I am quite sure that it will also pay those in the long run, who produce other grades of honey for manufacturing purposes, also to take pains to produce the very best grades that is possible in their location, as, from what I can learn, even the manufacturers who require honey, do not from choice use the thin, unripened stuff.

If asked to briefly epitomize the essential factors that enter into the production of good extracted honey, I would among other requirements mention the following: Good, strong colonies; at least a fair flow of honey, and the possession of enough drawn super combs to permit ripening of the honey on the hives and allow for storage of honey at the same time. And after the extracting is done, that all honey be put into retainers as soon as possible, as in our climate honey is more apt to deteriorate than improve when left exposed to the atmosphere for any length of time. By the term

"our climate," of course I include all the territory having a humid atmosphere like Ontario, as there is no question but that there are many sections in the Western States that these remarks will not apply to.

Our subject title speaks of 'nectar' and 'honey,' and by this we would understand that there are different stages in the production of honey by the bees. Our dictionaries give us little modern light on the word "nectar," as we use the word in bee-keeping, for the word, like many more in the English language, has changed its meaning faster than the lexicographers have been able to keep pace. Students of mythology know that the original term, "nectar," was used to designate the food of the gods, and at the present period our best dictionaries, in addition to this meaning, also define the word as meaning any very sweet drink. But "nectar," as we bee-keepers understand the term, means the freshly gathered sweet substance found in flowers and carried into the hives by the bees.

While nectar is undoubtedly sweet, and more or less pleasant tasting when thus gathered, yet experience has taught us that if this freshly gathered article is extracted from the combs too soon, without having had the excess of water content eliminated by the bees, the sweet taste of the aforementioned gods to insinuate for a moment that they feasted on such an inferior and ill-tasting food as the resultant product is apt to be.

Modern methods of bee-keeping render it exceedingly easy to produce unripe honey, and I am glad to say as well, that in the hands of bee-keepers so inclined, to produce a good, well-ripened article.

I say, "in the majority of cases," as fortunately on rare occasions, for all we can do to the contrary, our honey will not come up to the standard we would like, owing to peculiar weather and other conditions that sometimes are hard to be explained.

I have said that modern methods make it quite easy to produce unripe honey, and in this statement I have in view the fact that nearly all extracted-honey producers have drawn super combs carried over from year to year, and how easy it is to empty those combs rapidly and often when

the honey is coming in good and lively!

Of course it is impossible to bring up the subject of producing good extracted honey, without saying something about the number of supers to be used in the process. In this connection, while a very few still prefer but one super, it is gratifying to know that the great majority of the fraternity have come to the conclusion that best results, both in quality and quantity, are attained by using two or more supers for each colony of bees to be operated on.

In my own case, I have by force of circumstances been obliged to use both systems to a limited extent, and never yet have I been able with one super, anything nearly as small as the 8-frame Langstroth, to operate without sacrificing either quality or quantity, and I feel bound to say that any one attempting to produce a really good article of table-honey with an equipment of one super per colony, will lose in one way or the other—quite likely in both.

After all my using of different styles of hives, with one or more supers per colony, I have come to the conclusion quite positively, that in order to produce a good crop of honey it is necessary to have a large stock of extracting combs, and that in order to produce a crop of good honey, the same requisite is just as imperative.

Not so many years ago, the dealers of honey in Canada did not offer very much encouragement towards the production of well-ripened honey, and "color" was all they thought about when a sample of honey was shown to them. However this state of affairs has now changed, and good "body" is just as essential as "color."

This reminds me that a few years ago the Ontario Association of bee-keepers had a well-known apiarist from the New England States, lecturing at its Toronto convention, and in the course of his remarks he stated that in his locality the people preferred a honey that would run freely, like syrup, rather than an extremely thick article that was not so nice to handle. Perhaps the taste of the people on this side of the border differs from that of us Canucks, but in glancing down the "honey for sale" column, in one of our trade papers,

this view is not substantiated. These advertisements speak of the honey "being left on the hives till after the flow over, before being extracted," "thick and well-ripened," "still on the hives," and other like phrases. Strange that not one of these advertisers speak of their honey being extracted before being sealed over, ripened artificially in tanks after being extracted, or in some other way seek to convey to the would-be purchaser that they have something other than good, well-ripened honey to offer!

In regard to the use of tanks for artificially ripening honey, I will not dispute the fact that the process is possible to a certain extent with conditions just right, yet I have to get my first taste of honey so ripened that would in any degree compare with the naturally ripened article as finished by the bees while yet on the hives. It is noteworthy, in this connection, that very few bee-keepers now advocate the tank system of ripening honey, while not so many years ago many would be found to champion the method.

I propose saying nothing in regard to implements, hives or other fixtures used in the production of extracted honey, believing that I am in the main speaking to an audience that are not beginners, and, after all, these are but minor factors, and if considered necessary, can be touched upon in the discussion that is to follow.

In so far as the marketing is concerned, the problem is pretty well solved when we have the right kind of an article to offer, as it is a pleasing fact to know that good extracted honey is now regarded as a staple food product, and not only a luxury. To my mind it is to the interest of the bee-keepers as a body, to encourage the sale of honey in the granulated state, which is a natural condition for honey to be in after being extracted for any length of time. This will naturally, to a certain extent, discourage the use of glass as containers of honey.

Right here I wish to say that the buying of honey in glass is an extravagant way to purchase honey. To be sure, I recognize the fact that much honey will continue to be sold in glass packages, but, after all, those in the main who profit most by this method

of retailing, are dealers rather than producers.

A writer, in a recent issue of the Bee-Keepers' Review, claims that when honey is brought from the producer at 8 cents, it is not possible to sell it to the consumer at less than 25 cents in bottles. In my humble opinion, 8 cents is much too low a price for a man to receive for first-class honey, if he is keeping bees for a living; while, on the other hand, 25 cents is too high a price for the mechanic or artisan to pay, who has to work for a living.

If the present system of getting honey before the consumer calls for twice the sum in profits for middlemen as was originally paid the producer for the honey, then there is something wrong in the system, and the sooner the producers recognize this fact, and act accordingly, the better for them.

In conclusion, I would say to producers of first-class extracted honey, do not think or act as if your product is in any way inferior to comb honey; use intelligent and honest methods in your work, and there is no question, in my mind, but that the use of our product will increase by leaps and bounds, as it has been doing during the past few years. The element of suspicion that formerly lurked around extracted honey is fast disappearing, and it is "up to us" to help the good work along by offering nothing but well-ripened honey, and showing the same animosity towards the thin, unripened article that has been accorded the adulterated stuff in the past; for, after all, it is an open question as to which has done the most harm to the industry in the days gone by—adulterated honey, or unripe honey. Personally, I accord to the latter article the more odium of the two.

J. L. BYER.

Mt. Joy, Ont., Canada.

Pres. York—I wouldn't be surprised if Mrs. Byer helped to write that paper, as I understand she uncapped about 30,000 pounds of honey last season. The paper is before you now for discussion. Has anyone a question to ask?

J. E. Crane—I would like to enquire how we are to get buyers to purchase extracted honey in tin or paper packages unless they can see it, or get

merchants to sell it, while they are still unwilling to do so, and while they very much prefer glass.

Mr. Smith (Massachusetts)—I would like to ask Mr. Byer how he manages to keep the nectar or the thin honey separate from the thick or well-ripened honey at the close of the honey-flow, which to me (in Massachusetts) is from the 1st to the 15th of September? This year it was about the 15th of September, and with a good deal of the honey I took off, a great many of the frames would be from one-third to two-thirds capped, and nicely ripened honey; the balance of it too thin to extract.

Pres. York—We ought to have Mr. Crane's question answered before we have another question. Will Mr. Byer answer? Mr. Byer—As I intimated in my paper, there is no question but that a considerable quantity of honey will, in the future as in the past, be sold in the glass, and the only answer I can give is to get them to create a desire for it; but otherwise it would be a policy of education. I believe the demand is growing in Ontario more towards honey in the bulk, say five or ten-pound pails, instead of in glass. I believe it is increasing in glass, but to a greater extent in the pail.

Mr. Davis (New York)—In support of Mr. Byer's argument relative to the desirability of selling it in the glass or tin, I think that the difference is not so much in the question whether it is tin or glass, without knowing anything to the contrary. I trust that Mr. Crane is interested or speaking from the standpoint of the small-package glass, the jelly tumbler or the olive bottle, or as it is put in small packages. I think the household purchaser will be willing to pay the added expense, the difference between glass and tin, provided the glass is something which she can use subsequently in household preparations, such as the Mason jar, or the Economy jar, with the vacuum or easy seal, and use that glass receptacle in some other way in the future. There is absolutely no doubt that the argument is in favor of the glass package as against the tin, but it is really an expense on the consumers, unless they can use it in some other way in the future.

Mr. Snyder (Pennsylvania)—I don't think it is possible to educate people in the city to use anything but a small package; the tendency is, in all food stuffs, to have a small package, something the grocery store can handle, take right from the shelf and give to the people from day to day. In the country it is a different matter. If you sell retail in the country you can sell any way you see fit if you work it right. When it comes to selling honey in large quantities for the city trade, the small package is absolutely the demand. I don't think anything else will ever be sold in my time.

P. E. Crane (Vermont)—We have had some experience along that line; we sell through the wholesale grocery trade to the retailer, and I find the trade in glass is increasing very rapidly, whereas the tin package (we put up the quart friction-top tin can) is decreasing, and the reason is that it sells in glass better than tin, because it shows it up. There are a great many people who like honey that never think to order or buy it unless their attention is called to it either by enquiry or seeing it. The tin package has a label on it, but it does not catch their eye as honey in the glass does. There is a difference in the price. The retail grocer has his choice, and he will pick the glass package 99 times out of 100.

Mr. Sherwood (New York)—I sell quite a good deal of extracted honey in glass to consumers in the city. I live in Sullivan County, and they like it all in glass packages, no matter if they buy it in quantities; and I find it very satisfactory. They seem to think the same, for they use quite a little of it. I get 20 cents for it.

Mr. Snyder—I find, although I put up the quart Mason jar, invariably the people will take the pound jar, three times in preference to the Mason jar, because it has a good bottom, and it will stand, and can be set on the table.

Mr. Byer—If honey in glass is not properly looked after when it is put in the store it ceases to become an object of attraction. I went through a large department store last week in Toronto, and they had a large display of honey in glass, and nearly all that honey had started to granulate; it was anything but pleasing to the eye,

and I think any customer coming in there would just as soon take one of the cans. Honey, half granulated, is anything but pleasing.

Mr. Davis—In support of the cans I would like to call the members' attention to the fact that if the Corn Products Company can dispose of tons of glucose in a tin package through the medium of advertising, why can't we dispose of honey with the same amount of advertising behind it? If the customers go to the grocery store and get two quarts of stuff in a tin can, simply because they are educated to it by the bill-boards all over the United States, why, by the same means, can't honey producers induce them to take honey, whether they put it in tin or glass?

Mr. Snyder—It can't be sold at the same price.

Mr. Davis—I know one village of scarcely 15,000 inhabitants that have consumed this season about 15,000 pounds of honey, and they buy at 15 cents a pound.

Mr. Hershiser—I think the subject is very well covered. Contrary to the experience of a good many, I find I can sell more honey for family use in the tin than in the glass. I like to sell at least a dollar's worth, and I find that will go almost every time in preference to a smaller quantity. If you are going to sell a Mason jar that holds three pounds at 5 cents, and put up 7 pounds of extracted honey for a dollar, they prefer that to the three pounds for 50 cents. Now I use a five-pound lard pail, and I like the flaring lard pail; it is the cheapest tin package I can get. The cheaper the package you can use, the more honey you can sell, and seven pounds will go for a dollar just as quickly, practically, as though you put up ten.

There is one point in this discussion that I think merits more attention than any other that has been brought up, and that is the tendency a great many bee-keepers have of cutting each other's throats on the price of honey. One bee-keeper goes into a locality and works up a market, and is getting a good price; another one goes in, and he thinks the only way for him to do business is to cut the price down. I don't think that is good principle. If you can produce good honey you can sell for just as much as the other fellow, and you ought not

to object to working up customers of your own instead of trying to cut under some other fellow, and get the honey sold regardless of the effect upon the market.

I have found more trouble in that one thing in my market than any other. There was a time when I bought jelly glasses at the rate of 50 barrels at a time, and put up honey in jelly tumblers, and the market kept working down and finally they wanted them for a dollar a dozen. I got a jelly glass that I could sell for a dollar, it didn't hold as much honey as the jelly glass did which sold for \$1.25 a dozen. I worked up a good trade. No sooner had I a good trade worked up than some of these fellows down in Toledo and Detroit, and New England, came up with honey, some of it inferior, and went to selling for 95 cents, 90 cents, and finally 85 cents a dozen. The only way they can do that is to buy the honey of the producer for 6½ and 7, or not much more than 7 cents a pound, and then they don't get anything for their work. How can they get anything out of it, buying honey for 7 cents a pound and selling it for 90 cents a dozen? They do business for fun, that is all. The advice I want to give to bee-keepers is, that your honey is worth more than seven cents a pound in the first place. If it is not worth that, quit the business. In the second place, when you work up a trade, no matter how much these fellows come in to cut under you, stick to your price. I never sold a dozen for less than a dollar. I have gone out of the business of selling honey in glass tumblers. They don't sell so much honey to the consumer as they used to do; I sell direct to them, and I get more for my honey than they can get after having paid all the expenses of transportation, putting up the honey in containers, paying jobbers' commissions, etc. I don't see how they have "the face," after paying all that, to sell for 90 cents a dozen.

L. C. Root—In response to the party who speaks of selling the corn syrup for the price they do, of course that is done in a large way, and involves an expense that an individual bee-keeper would hardly take. There are two ways in which the average bee-keeper should dispose of the product. We have to cater to two markets.

The kind that must have it in glass to sell from the shelves of the grocery store is one. But, it seems to me what bee-keepers need to be urged to do is to dispose of their own crop, and this can be done. As some one has said, bee-keepers as a rule have the credit of being honest, and if people are dealing with a person they think honest, they will take their goods on their recommendation, and more of the honey that is produced should be disposed of by the bee-keeper himself. It is to me a sad thing that so little honey throughout the country is consumed. If we are wise in our discussions it seems to me that the amount of honey that will be consumed in the future will be much greater than it is now. I have been interested lately in talking with a woman bee-keeper who has just commenced this year. She has had no experience until this year. She has done remarkably well, and she is disposing of all of her own honey to the neighbors. Here is a great need. We can't induce all the people that ought to keep bees, to keep bees. Father Quinby used to say there were tens of thousands of pounds of honey going to waste in every community that might be had, not for the asking, but simply for the taking. If we could induce more people to keep bees to supply their own honey it would be a grand thing, but we can't do this. The majority of people must have their honey furnished to them by the bee-keeper, and this may be done by the bee-keepers themselves in tin packages, but don't forget the shelf goods, and the goods in glass that are put up attractively, because large quantities of honey in our little city of Stamford are disposed of from the shelves. I can assure you when such honey as that is attractive, with a nice label on it, it will invariably advertise itself, and people will come back, and there will not be the danger of a paper or tin package. We want to put up first-class goods. People will come in and sell honey for less, but if you keep up the standard of your honey, every section of honey that you sell, high, so that when people buy it they know if they want more honey exactly like that which is properly assorted, they know where to get it, you need not fear. When you put your card on your section of honey people know that every time

they are going to get just exactly that honey, they are not going to be deceived, and they know that the next time they will get a jar that is pure, and they will come back.

W. A. Selser (Pennsylvania)—I would like to emphasize what Mr. Hershiser has said about the price we ask for honey, selling in glass or other package to the retail trade. I want to say, you are very foolish to cut the prices of honey when you go into a city where some other bee-keeper has got just a little bit the start of you. I have sold honey in glass packages in most of the Eastern cities, and I want to say I never had very much fear when I went into a store and found some other bee-keeper came in and cut under my price ten, fifteen or twenty cents a dozen, simply because the grocer is at once somewhat suspicious of the lower priced goods. The man I feared was the man that put up his honey as nice as I did, and asked just as much, or probably a little more, for it. In regard to the ten-cent package, if a man goes into a store and sells a dozen of honey at a dollar a dozen to the retail grocer, he can feel pretty sure that that honey is going to sell at \$1.00 or \$1.20. If you sell it at 85 cents he will cut it to 8, or probably 7 cents; he doesn't make one cent more, and you know as well as I do that the ordinary woman or jobber will pay ten cents for a package of honey just as quickly as they will pay 8 cents.

I want to ask Mr. Byer this question: He said in tiering up above the first super that you have a better quality by tiering up three, four or five supers high; I am not clear in my mind, at the moment, why the second super should be any better in quality than the first super.

Mr. Byer—I said one or more supers. I am sorry the discussion has drifted off. In other places, if you look through my paper, I think you will find the word "good" underlined. I regard this discussion on the question of glass or tin a very minor point in my paper. I did mention more than one or two supers in the paper. I certainly could give abundant reasons why two supers would be better than one. In the producing of extracted honey, when honey is coming in with a rush you will find that single super full and unsealed; but if

you don't extract that at once you will lose in quantity; if you do extract you are going to take off inferior honey. If you lift that super up and put a second super under, the bees will seal that top story over, and you can extract that later on.

Mr. Stone (Illinois)—I wish to emphasize what Mr. Hershiser said, and when it comes to selling honey to the man who sells it again, if you don't believe it is better in the tin, just try it as I have tried it. As long as I want to keep them in ignorance I sell the honey in the glass, but just as soon as I tell them how much honey they are getting in the large-sized packages of glass, or the cost of it, you see they add those two together, and they are satisfied with the biggest package you have got. Let them know you are selling it in five-pound tin pails, and by the glass, and you will never sell them any more in the glass. My customers all want the five pound tin pails, because I have educated them to know that that is the biggest package.

Mr. Snyder—My experience is that the more bee-keepers there are in the neighborhood, and the more honey there is sold, the more can be sold.

Pres. York—Mr. Smith asked a question, and we have come to that now.

Mr. Levens (Massachusetts) — My best success has been with Mr. Hershiser's jars, but I think it would make you weep to see how some grocers keep comb honey. I have seen it on the street in a glass case where the thermometer has been several degrees below zero. I asked the man why he kept it that way. I told him if I was a bee I would sting him for it! The trouble is, the grocers don't know how to handle honey, and they "queer" the trade in that way.

Mr. Smith—The point I wish to get light on is, what to do at the end of the honey-flow; the last honey-flow in Massachusetts is from the 1st. to the 15th of September. I want to know how to manage with the extracting combs that contain more or less nectar, or honey that is not thoroughly ripened. I can manage all right through the season up to that time, but at the close of the last honey-flow from the 1st to the 15th of September there are a great many extracting frames that contain more or



less thin honey. I would like to know how Mr. Byer manages in such cases.

Mr. Byer—If that loose honey was mostly unripe I certainly would first uncap it and extract it after.

Mr. Smith—That is exactly what I did, but I wanted to see what Mr. Byer would say.

Mr. Davidson (Kansas)—I have seen a great deal of unsealed honey that was ripe, perfectly ripe. After the flow is over the bees will ripen that honey, whether they seal it or not. When the flow stops they quit sealing their honey, and they ripen it; so you can extract this honey after the flow is over.

Mr. McEvoy—Wasn't that sealed all the same, although it wasn't capped?

Mr. Hilton—I wish to state one or two facts in regard to that question of the tin or sealed package. This fall I inserted an advertisement in certain papers in Schenectady, "extracted honey for sale; 12 cents per pound delivered." I only put it up in five pound pails. The result was, I got quite a few postals. I took my five pound pails and answered those orders. The objection was raised, "I can't use that much in a year." I said, "You can take the five pound pails and use what you like out of them, and I will call next week and take the remaining quantity back." When I called the next Saturday for the remainder of the honey the lady said, "I want another pail of that honey. I was letting some friends of mine try it, and one of them gave me orders for two pails to be delivered elsewhere." If you put a higher priced package on the market, say half a pound for 20 or 25 cents, that honey is going to be too good for the children and visitors to eat; they are going to make that last a year or so. In almost every instance I sold five times the quantity of honey that I would if I sold the small orders at fifteen or twenty cents a pound.

President York called for the paper by Mr. Louis H. Scholl, of New Braunfels, Texas, on "Bulk-Comb Honey and Its Future." The paper is as follows:

#### "BULK COMB HONEY AND ITS FUTURE.

You may talk about your section-honey, and you may talk about your

extracted,—but Oh! your bulk comb honey!

Yes, that is the way we, who have given the matter the most careful study, look at it. We have had experience with all three kinds of honey production and sale to fill the demand we began our bee-keeping career, there was no other honey to produce than section honey and extracted. Since the question of extracted honey was altogether out of the question and the expense of an extra, laborious and vexing method of producing a first-class article of section honey was some experience that will never be forgotten. And had it not been for the raging bee-fever within us at that time, we might have gotten tired of bee-keeping. It was quite a proposition to produce a large crop of comb honey in this way, especially if we had not learned the tricks of the trade, that those who continue to harp on the production of section-honey appear to possess.

Extracted honey was produced by the great majority of our bee-keepers and it was the general product of the box-hive bee-keepers all over the country, with whom competition had to be met to some extent. Thus it was that very low prices, and a slow sale for it, prevailed. It was only the more extensive producer who could ship his honey to the northern markets, who could evade these conditions, and here again the freight rates cut the profits down to a low margin. Under these conditions, Texas would not have become famous as a honey-producer. Had it not been for the introduction of bulk comb honey as the leading honey in the great Lone Star State, she would perhaps be lagging behind today. Section-honey was too high in price of production and sale to fill the demands of the general public; extracted honey was in abundance, but it dragged on the market.

With the advent of bulk comb honey, Texas made strides forward as no other state has done, in bee-keeping, and has for several years, and today stands at the head of the list. Bulk comb honey has made bee-keeping profitable; and bulk comb honey has helped us to reap a golden harvest, year after year. Bulk comb honey has put section-honey out of

the market, practically altogether since it is produced by only a few scattering ones, in small quantity.

Bulk comb honey is the honey at the present day. The demand is greater for this kind of honey than could ever have been expected with any other kind. And the profitability of this product has been proven over and over again, so that it is money in the pockets, if the bee-keepers have a crop of bulk comb honey. To have a crop of bulk comb honey is just so much money for the bee-keeper's pocket, as soon as it is produced, or even before. Either extracted or section-honey must first be sold after it is produced, and the prices are not as high in comparison to the cost of production, hence the profit is not so great.

The advantages of its production are greater also. It is easier to produce bulk comb honey in a slow or a fast flow as well. It can be produced on any kind of a colony of bees, even if it is too weak to crowd into the section-boxes, and more of it can be produced on strong colonies. Under the same conditions of the colonies and the honey-flow, more bulk comb honey can be obtained than section-honey, and this is especially true during seasons that are less favorable for section-honey production. The difference in proportion in favor of bulk comb honey increases as the favorable conditions of the colonies and the honey-flows decrease. This is one of the greatest points in its favor when we consider the dry and otherwise unfavorable seasons that so commonly prevail now, and which have a consequent effect upon our producing colonies. If this is so, and it is easier to produce and dispose of a crop of honey, with greater profit, is it a wonder that bulk comb honey has found a place of its own, and crowded almost everything else out of the market, and that some of its advocates, who have made money out of bulk comb honey are enthusiastic about this matter?

And why can not other states adopt bulk comb honey? It is hard to see any reason why it should not be. Especially is this true since the country is more thickly populated, making the selling of such honey far easier as compared with our more thinly set-

tled country as yet, with the vast distances from the producer to the consumer. If we can make it profitable your advantage over us would only make it more profitable. Have you tried it? If you will, you shall find that we are not over-enthusiastic about bulk comb honey.

It shall not be the purpose of this article to cover the entire ground of bulk comb honey and its production. Suffice it to say that it can be produced with any kind of hive in use, but always preferably in shallow frames. These are more easily prepared with very light foundation in full sheets; are more readily adjustable to the needs of the colony or the condition of the honey-flow when giving the bees super room; and are much more easily removed when completed.

The finished comb honey can be put up in various ways, but we have a standard way of our own, which is well known to the producers and the dealers, and other purchasers alike. The adoption, years ago, of standard sizes of honey cans, and listing them in the same order by all bee-keepers, when quoting the prices of honey, has made it an easy matter for the buyer to order, and for the bee-keeper to understand what is wanted.

The most commonly used package heretofore has been the two 60 pound square cans to the case, exactly like the extracted honey cans in all respects, except for the large, 8 inch screw-cap opening, to allow filling the cans with the comb honey. The next size on the list is the case containing ten 12 pound friction top pails. These are like the common syrup pails in all respects, except that the Texas size is enough larger to make a twelve pound instead of the regular ten pound pail. Each of these packages are known as 120 pound cases of honey, and are rarely sold otherwise. It is an uncommon thing to ship less than a case of honey, even one 60 pound can.

Then we have a case holding ten 6 pound friction top pails, and one with twenty 3 pound friction top cans, making two cases of 60 pounds of honey each. The 60 pound cans are used mostly for family use, as many families order a case of two such cans. If one family can not use a whole

case, two neighbors go together, thus saving on the price of the honey, since an extra charge is made for a case for a single 60 pound can, and the saving of freight also, since it costs almost as much to ship by freight a 60 pound can as 100 pounds more.

These large cans are also used by retailers to retail out of the original package in small quantities. This last method is fast losing ground, however, since the ways of the world are changing to that of selling almost everything in its original packages. For this reason the demand for the smaller packages as the 12, 6, and the 3 pound friction top pails and cans is increasing over that of the large sizes, from year to year. The 12 pound and 6 pound pails are in greatest demand.

Very little attempt has been made to put bulk comb honey up in glass packages as yet, but it will be done extensively too. We have tried this to some extent, and of all the pretty things that can be imagined, a nice, clear, white, glass jar, filled with long, nicely cut pieces of fancy white comb honey standing upright, fancy light extracted honey surrounding it, when held to the light this presents a sight that is simply beautiful and appealing to the appetizing tastefulness of every one who has the slightest taste for honey. And such a product sells! We know this for we have several times rolled one jar after another over the counter into sheets of wrapping paper as fast as this could be done, while another took up the money that was laid down by the purchaser, one trying to get ahead of the other, for fear the supply would not last. This was at some of our Fairs, where we had the same kind of jars filled with the same kind of extracted honey, only at a lower price, side by side with the bulk comb honey, but these were not taken until the bulk comb honey was all sold. And then the purchasers demurred while numerous ones, who had to satisfy themselves with the extracted, proclaimed that next time they would be sure to come earlier, so as to get some of the bulk comb honey. This has been evidence enough for us to believe that bulk comb honey would create a good demand right by the side of section honey, or extracted honey anywhere, or in any kind of a market.

These are only a few remarks of what bulk comb honey is, what it has done, and what its future will be. To begin to tell all about the advantages and the details concerning the production of bulk comb honey would be impossible, as that would take an enormous lot of time. This can be better done through the columns of the bee-papers instead of this place of busy work.

LOUIS H. SCHOLL.

New Braunfels, Texas.

Mr. Latham (Connecticut)—At our Hartford Fair, in Connecticut, bulk honey was shown, and the exhibitors were given permission to sell off their exhibits, and in every case the bulk honey sold out before the others, just as Mr. Scholl mentions.

Mr. Vanderwerken (Connecticut)—How is it possible to produce more comb honey than extracted? The paper says it can be done. How about it when it candies? How much will you have on your hands then?

Mr. Hershiser—I believe that the question of locality comes in here. It is my impression that honey in Texas, and especially in California, doesn't candy as readily as it does here, and undoubtedly for those whose lot it is to live in the "wild and wooly West," it may be better for them to produce this kind of honey; but I don't believe it would be good to go into this kind of production in this part of the country, because as soon as it candies it becomes an opaque mass, whereby the comb honey wouldn't show up at all looking through the extracted honey that surrounds it; and again, as the gentleman has suggested, I don't think it is possible to produce quite as much comb honey as extracted. I think it is a question of locality, somewhat.

Mr. Hardy (New York)—I attended the World's Fair at St. Louis, and I noticed that a number of the Western States had a very good way of advertising; they had books or pamphlets gotten out, and in those were very nice photographs; one would be of an alfalfa field in Kansas, and under that would be the description "As we do it out in Kansas." That paper is a very able paper, as far as Texas is concerned; it may apply to their conditions there in good shape. They have worked up a condition of trade

that desires that kind of honey, but would it pay for us to change all around and go into the bulk honey business? I did think at one stage of that reading I would enquire as to the most direct route to Texas, but from certain points which have been brought out I am led to believe that we are not entirely in the wrong up here. Since I have started in the bee-keeping business I don't believe everyone in every other locality can tell somebody else in every other locality how to keep bees. It remains with you and your environment, and the honey-flow, whether it is short or long, as to what you shall do, produce comb honey, extracted honey, or bulk comb honey.

Mr. Adkins (New York)—I have an order standing on my books for this winter to send to San Antonio, Texas, comb honey!

President York—In a personal letter to me Mr. Scholl says: "One thing that you might say in the discussions, is that we have the greatest advantage in shipping our bulk comb honey in cans, and these in cases, at the very low freight rate of fourth-class, or the same as that on extracted honey."

Mr. Stone—In the face of what has taken place down in Texas this paper certainly is correct, because the man who handles bee supplies in San Antonio, Texas, has advertised sections at a very much reduced price. He says he can't sell them down there any more, and he won't send them North again himself. That is good evidence of bulk comb honey being the thing down there.

Mr. West—For us up here in New York the package seems to be quite bulky. It is bulky over and over again, and with us that bulky stuff would get so hard it wouldn't be as salable here as comb honey put up the way we put it up in our State for our trade. As has been said, it may do better for Texas, but I don't think it would do very well up here in New York.

President York—There is plenty of room for bulk in Texas—it is a pretty big State.

D. H. Coggschall—As soon as that bulk honey is shipped north it candies. I have put it in my trunk and brought it home, and when I got it home it was

candied. They can use it down there, but we can't in the North.

Mr. Latham—I have had some experience in bulk honey, and the gentlemen are right about the candying of it. In any place where honey candies readily you can't make a good thing out of bulk honey. If a man has such a class of honey that when it has been heated and strained properly it will stay a long time without candying, he can get a market for that which will steadily grow. In Connecticut we have a honey which does not candy, and it will stand for two years without candying. It is simply a matter of putting that up in bulk, and the people buy it before it gets candied.

(At this point an intermission of ten minutes was taken).

Mr. France—I have a few copies still left of the Annual Reports from 1905 up to the present time. I think there is a good deal of value in each one of them, and I will be glad, indeed, to send them for just the postage to any of our members. They are tied up in a bundle, and the postage on them is about 20 cents. They run from 1905 to 1909 inclusive. I do hope there are members who are willing to pay the postage for that valuable information.

President York—The next paper is "Ripening Honey on the Hives," by Mr. W. P. Southworth, of Salix, Iowa. Mr. France will read the paper.

Mr. France then read the paper as follows:

#### RIPENING HONEY ON THE HIVES.

Ripening honey on the hive, or the best method of producing honey that will "taste like more" to the consumer, is a subject that I have given a good deal of time and thought, and I wish that I could be present in person to defend the stand that I take.

I contend that it is not enough that honey be entirely sealed in the comb to be ripe and ready for market, but I hold that honey should age in the hive. I can not say how long a time should be allowed for this aging, as much depends on locality, the kind of bloom, and the atmospheric conditions.

My opinion is that this applies to both comb and extracted honey, but it is not so important to age comb

honey, because it must be sealed in order to be marketable, and its attractive appearance has much to do with its ready sale. Therefore, we must consider this point and not allow it to become dark and travel-stained. No doubt most of us have seen the nectar in the open cells of our immaculate sections become bubbly and sour, and the faces of the sections become watery and greasy appearing, even when kept in a warm, dry place. This shows that the preserving properties are not complete.

In the production of extracted honey the perfect ripening is more essential as the extracting process causes the honey to take in the ferment germs that attack the particles that are not thoroughly inverted or changed from nectar to honey.

In my position as manager of the Western Honey Producers, 200,000 pounds of extracted honey comes under my observation annually. The first two years of our existence as packers and distributors nearly all the honey came in small lots, and we noticed that there was quite a difference in the quality and density of the honey. This led to close examinations and tests, and the cause was soon located. Some of the honey had been extracted too "green." One such lot that was received in the fall of 1908 showed signs of outgrowing the cans soon after it was placed in the warehouse. Some of the cans were hissing quite loudly when it was discovered. This honey was at once treated by our clarifying process to see if the fermentation could be stopped. We succeeded in putting it in a condition so that it would keep indefinitely, but the flavor was injured so that it could not be used as table honey.

Last season we were offered some carload lots that were slightly fermented, at half the price good honey was bringing, but we could not use it. A large grocery house bought it, and by cooking it in a steam kettle made an ingredient that they sell for pure honey. It will pass the pure food inspection, but it will not pass the lips of the consumer the second time. It is such honey as this, put up by ignorant persons (in the case mentioned above I think it is largely ignorance and a desire to get a large package

for little money), that is ruining the honey market.

Give the consumer that rich, thick, delicious honey, that is extracted later in the season, and it will tax the bloom of our fertile fields to supply the demand.

Our honey business has expanded in the past four years more than we anticipated, and this has been brought about by our putting out the best honey. We have secured this best honey by getting next to the producers, and showing them where they are making their mistake. As a result, they were anxious to please the consumer, and today our warehouse is full of extracted honey, every can of which will test perfectly in density, formic acid and flavor.

The question will be asked, "how are we to let all of our honey ripen or age on the hive?"

My answer to this will depend much on the locality and kind of bloom. If the flow is practically light honey, then tier up and leave it until fall. If there is a light honey-flow followed by a dark autumn flow from buckwheat and other blossoms, that impart a strong flavor, I would say, leave the light honey until the dark honey begins to come in, and if a little of the dark is mixed in it, it is not so serious a fault as to extract green honey or nectar.

I have read with interest the articles written by G. C. Greiner, E. W. Alexander, and others, on extracting often during the season, and the methods of artificial ripening. At the same time I have considered what constitutes honey, and would refer my hearers to the bulletin published by the Agricultural Department at Washington, D. C., entitled, "The Chemical Analysis and Composition of Honey." In this we find the following:

"In the modification of the nectar by the bees several changes in the composition are produced. Among the most important of these is evaporation of the nectar to a water content of about 20 per cent. This is effected in the hive by the bees exposing the nectar in thin layers to the action of a current of air produced by the fanning of the wings. This evaporation is further hastened, according to some, by process of regurgitation, the nectar being continually thrown

out from the honey-sac on the partly doubled tongue, and then drawn in again until, by the movement of the heat and air of the hive, the nectar is sufficiently reduced to be deposited in the cells of the comb.

"Another change of considerable importance which takes place while the honey is in the honey-sac of the bee, and also probably during evaporation and storage in the comb, is the inversion of a considerable part of the sucrose in the nectar through the action of the inverting enzyme secreted by the bees.

"Another modification produced in the nectar by the bees is the introduction of a minute quantity of formic acid. This acid is wanting in the pollen and nectar of the flowers, and is supposed to be introduced into the honey by the bees just before the capping of the cells. The formic acid thus introduced by the bees is supposed to act as a preservative, and prevent the honey from fermenting."

I am a great admirer of E. W. Alexander, and have his writings that I have studied carefully.

As far as I have tried his methods I find them well suited to the conditions in this locality, with one exception, and that is his method of extracting the nectar from the combs before it is sealed, or even well evaporated.

In Mr. Alexander's locality, and with his equipment and methods, this process may work out; but in this locality, and with the equipment that the average or even extensive bee-keeper has, I believe the plan is worse than a failure—it is a damage to the honey market. I am of the opinion that no producer of extracted honey should try it unless he wants to enter quite extensively into the manufacture of honey-vinegar; and I doubt if the nectar would make as good vinegar as ripe honey would.

Some bee-keepers favor the frequent extracting of the green honey on account of the apparent economy, believing that it will save them something in the way of investment for fixtures, such as extra supers, frames, foundation, etc. But from the economical standpoint alone, to say nothing of the quality of the honey, I find that it is easy to prove that having the extra fixtures and allowing the honey to

stay on the hive until the end of the season, and then making a business of extracting it at one time, rather than to be dabbling in it at intervals during the season, is the cheaper method, for much more time is sure to be wasted at each small extracting than would be wasted if the work was left to be done all at once.

Some argue that frequent extracting of honey from the combs stimulates the bees to greater effort to gather more honey to replenish their scanty store. On this question Mr. Dadant thinks that the more stores the bees accumulate, the more they will continue to gather, provided they have the combs to store it in; that is, they are not unlike human beings in that they work the hardest when they are prosperous; but if their hard earnings are taken away continually they become discouraged, and are more likely to give up trying to get ahead.

The all-important question with the consumer is the flavor of the honey that he is eating; and if we want him to eat more honey, we must give him the thick, delicious honey with the bouquet of the flowers in it; and we can not get this from nectar, nor can man ripen the nectar so that it will be equal to the honey that the bees have finished. There is a fair demand for good honey, and I predict that the consumption of honey will not increase until a good article is put on the market universally.

Four years ago I extracted a lot of choice clover honey which I supposed was ripe enough, and I wanted to get it out of the hives before it should become mixed with dark fall honey. This honey was put into cans and pails very soon after it was extracted, and sold. Later in the fall I was trying to sell some honey to a man to whom I had sold some of this choice early honey, and he objected very strongly, saying that the other honey that I had recommended to him so highly, had fermented, so that he had to throw it out. This was where I got my first intimation of what it means to produce good honey. Some of that same nice clover honey that I had in the house I noticed was changing rapidly, and it soon spoiled. I know now that I can produce good extracted honey, and I know that all the bee-keeping fraternity can do it. The ma-



jority of the bee-keepers will be glad to do it when they have their attention called to the importance of this part of the work.

It is not more bee-keepers that the country needs, but more careful, painstaking honey producers that are willing to sacrifice quantity for quality, and give to the consumers Nature's richest sweet, properly prepared, and then we will see the condition that I referred to before, when the bloom of our plants will be taxed to supply the demand.

W. P. SOUTHWORTH.

Salix, Iowa.

Mr. France—I want to say that this Western Honey Producers' Association has grown from a mere nothing to about as extensive an association as I know of. It has grown to the extent that they are liquefying, bottling, and sending out from six to eleven thousand pounds of honey per day, so that, in good, ripe honey, means something. Mr. Southworth has sent me souvenir cards showing their methods of liquefying, bottling honey, etc.

President York—This surely is an important topic—the ripening of honey on the hives,—and the paper now is before you for discussion. Mr. Southworth is not here, but no doubt someone can answer the questions you may ask.

Mr. Davison—I have attended several conventions, and I have read a great deal in the bee-papers, and I always feel like trying out locations. With reference to this question of honey fermenting, there is a great deal in location. You take a damp climate, and there is a danger of honey fermenting. In the west or semi-west, I have never seen any honey ferment that was extracted. I have seen honey there extracted, and very little of it was sealed, and then I have seen it when it was all sealed, and I have never seen any yet that has fermented. I know this: You let honey become well sealed, and it has a better flavor than that which is extracted before it is sealed; it has a heavier body, and the flavor is much better. I suppose in this climate, and in other parts of the United States where there is a humid atmosphere, it would probably ferment, but we

have no trouble of that kind in the West, so it is the locality.

Mr. Stone—I would like to state what took place in my honey-house this year, and I would ask if it is a common thing, or if anybody else has ever had the same experience. When I extracted my honey I put it into deep cans. I was afraid it wasn't entirely ripe, and I thought from the after results it wasn't quite ripe, but when I poured it off those cans, thin honey would be on the top, and the heavy honey at the bottom. I don't know whether mine was an accident, or what happened, but the honey on top was very much lighter than the honey at the bottom. I would pour out the light, and it would all run off, and then keep pouring, and it would come out very thick.

Mr. McEvoy—I saw a good deal of that honey in many places throughout the Province of Ontario extracted honey was at the top, and the best honey was at the bottom of the tank. It is not left long enough.

Mr. Stone—Isn't that the reason that sometimes when you take it out of a large can and put it into a small can, some of it will candy, and some won't?

Mr. McEvoy—Yes.

Mr. Byer—The condition Mr. Stone has just mentioned is likely to result if the honey is left on till pretty well sealed over, and then there is a lapse of time when there is nothing coming in. I have seen it several times when that has occurred. It is more apt to occur than if gathered from one continuous flow.

#### COMMITTEE ON NOMINATIONS.

President York—As to the Committee on Nominations, we really have not had any motion as to whom that Committee shall consist of, but at the Convention last year, in Sioux City, there was one man from each state on the Nominations Committee. This was the resolution presented there:

"Whereas, the present method of nominating officers for the annual election of the National Bee-Keepers' Association seems inadequate, be it,

Resolved, That a committee of as many members as there are States represented at the National Convention be elected to select and report the names of two candidates for each office, in addition to the nominations obtained in the usual way."

According to that resolution I would name one from each State as the Committee on Nominations; but this same resolution, it seems to me, should be passed before that Committee is appointed, to authorize the appointment. There will be the four offices to fill, President, Vice President, Secretary and Treasurer, and three Directors. Do you wish to have a motion to follow the same lines as at the last convention? It seemed to work all right; at least, I heard no objection to it.

Mr. Davenport moved, seconded by Mr. Musgrove, that the resolution adopted at the last national convention be re-enacted at this convention.

Mr. France—I might just drop this word at this time. In the nominations which I have called for, the large percentage of those who replied said in effect, "I am not acquainted with the various members so as to vote understandingly on the nomination, and if you know who is the proper one, vote for me." I wouldn't say that the nomination in that way was a blank, but I do think this way of taking a representative from every state here to form a Nominating Committee to discuss for and against the merits of candidates is the ideal way of getting a nomination.

President York—We are doing this in addition to what the constitution provides for, so it is not at all a wrong method.

The president put the motion, which, on a vote having been taken, was declared carried.

The President named the following as the Committee on Nominations:

J. E. Crane, Vermont, chairman.  
 J. H. M. Cook, New Jersey.  
 Allen Latham, Connecticut.  
 James A. Stone, Illinois.  
 Charles H. Weber, Ohio.  
 E. Davison, Kansas.  
 J. A. Smith, Iowa.  
 E. L. Hoffmann, Minnesota.  
 B. M. Gates, Massachusetts.  
 Jacob Huffman, Wisconsin.  
 James S. Fowler, New Hampshire.  
 E. A. Dittrich, Indiana.  
 Morley Pettit, Ontario.  
 Wm. A. Selser, Pennsylvania.  
 R. B. Ross, Jr., Quebec.  
 Charles Stewart, New York.  
 Dr. E. F. Phillips, D. C.

#### POISONING MICE IN HIVE.

"How can I poison the dear mice that get into the hives in winter?"

J. E. Crane—A mixture of one part arsenic, one part flour, and one part sugar, I find very effective. It is laid in on top of the inside cover, not in where the bees are.

#### HUCKLEBERRY BLOOM.

"Is huckleberry bloom nectar producing?"

Mr. Latham—It is. I have proved it for years. In Massachusetts it is one of the best honey plants.

Mr. Hershiser—What is the color of the honey?

Mr. Latham—Dark amber.

Mr. Hershiser—What is the quality?

Mr. Latham—Very good; mild flavor.

#### BEEES AS A SUPPORT.

"Take one year with another, how many colonies will support a man comfortably?"

O. M. Smith—It depends upon the man, how much it costs to support him, and the location, and the strength of the colonies.

#### SUCCESS WITH BEES.

"What qualities should a person possess to be successful with bees?"

Mr. Snyder—Grit, grace and cohesion.

Mr. Oliver (New York) — Sobriety and industry.

#### HONEY-DEW FOR WINTER STORES.

"There appear to be conditions under which it is safe to depend on honey-dew for winter stores for bees. What are those conditions?"

Mr. Hershiser—The condition that I think is necessary to place dependence upon honey-dew is that it be gathered early in the season, and when the hive is comparatively full of brood and a heavy flow of honey, so that the bees use the good honey out of the hive first during the winter, and the honey-dew is left till later in the season.

Mr. Byer—It depends on the quality of the honey-dew, some will ferment after it is sealed over.

Mr. West—Some years ago when

honey-dew caused great destruction in our county I was called in a good many cellars along towards spring to see the condition of the bees; they had dysentery very badly. There was one thing I observed that spring: we had two sizes of hives, one a ten, and one an eight-frame, and when I first discovered that it was troubling my bees also, we got our bees out as early as possible to give them a spring flight, because after they have a flight outside the honey-dew does not seem to do them the same harm. But I noticed in the ten-frame hive the bees had gathered quite a quantity of good honey in the earliest part of the season, which was stored and remained in those outside combs, and where these larger hives had had an abundance of good honey the bees didn't trouble the poor honey in the cellar so very much; and those bees were not affected by the honey-dew like those in the smaller hive that had less good honey in it.

#### MANUFACTURED COMB HONEY.

"At the National Convention held at St. Louis, in 1904, a resolution was passed offering \$1,000 for two sections of honey made by human hands. Has it ever been called for?"

Mr. France—No; and not likely to.

#### FOUNDATION IN SECTIONS.

"What is the easiest and best way to put foundation in sections?"

Pres. York—Dr Miller uses the Daisy foundation fastener.

Mr. Cyrenius—After trying almost all of the plans advised and recommended, I cut the foundation into strips half an inch wide, and with the Daisy fastener I put it on the bottom of the box; then I invert it and use section foundation, and put as large a piece in the box as I can with the Daisy fastener. It makes one solid comb all the way through.

Mr. Davison—I have had some experience in putting foundation in sections. The way that I put it in now, and which I think is the best, is to put it in with melted wax. I take a board with about three or four little blocks on, just large enough so that a section will fit down over the blocks. I put in a bottom starter about a quarter of an inch, and the top starter you can put in just as

much as you please, fill the section half full, less or more. Then I have a little oil-stove on my table, and I have two cans, one with water and the other with melted wax in it. The one with the melted wax sits in the other one—one telescopes into the other—and the heated water keeps the wax warm; it doesn't cool suddenly. After I have put the section on these blocks and put the foundation in, I take a little wax on a brush and let it run down, and in that way fasten the foundation to the sections. You can fasten one or two starters at one dipping. I have used the Daisy foundation fastener and I have thrown that away. This other way there is no breaking down at all; you can throw the section clear across the room after it is cool and it won't break.

Mr. Cook—Allow me to suggest that instead of using the little brush, you take a plain piece of tin, cut about half an inch narrower than the section; dip this piece of tin in the hot wax about a quarter of an inch, and enough hot wax will hold on to the tin, and the tin will hold the heat, and by moving it a trifle edgewise the hot wax is distributed all along the angle right at the point you want it.

Mr. Morford—Use a medicine dropper with the wax, and it will run right along down.

Mr. French—We have had a great deal of trouble with the foundation dropping in our boxes, and I have been using the Daisy. I visited Arthur C. Miller's place last April, and the question arose as to what kind of foundation fastener we could get that would fasten the foundation into the boxes so that it wouldn't drop. I told him I was having bad luck. Mr. Miller says, "I don't know; but if you can help me out we will try." We had the Dewey, the Daisy, and Miller foundation fasteners, and we started. We laid the Daisy to one side and used the Dewey and Miller, and by using a piece of one and a piece of the other we got a machine that would fasten the foundation in so that it wouldn't shake. The next thing came the cost. We couldn't get over that, so we dropped it. Then after I got the machine all ready and in good shape Mr. Miller said, "Will

you please put the foundation into this box?" I said. "No, I have finished the machine, it belongs to you to do the rest of it." He was using then the Danzenbaker section, 4 by 5 $\frac{3}{8}$  inches. That has been the worst box to get the foundation into so that it wouldn't break. He put it in, he threw it across the honey-house, and the foundation was there all right. I told him that wasn't a fair trial. I cut the foundation out and told him to fasten it over again, and he did. Somebody came into the honey-house, and he threw the section, and it went out through the honey-house door into the bee-yard. The foundation didn't leave the box, but broke off about half an inch from the section. We tried it over again. I started then and came to Blackstone, and during the night I just saw how that machine could be perfected so that it would work all right. I telephoned down, and the consequence was as soon as I got home I made the machine in a rough state, and I have used it all summer with success, and I have not had a sheet of foundation drop. The secret of the whole thing lies here, that the plate that fastens that foundation to the box must heat the box, or section, at the same time as you melt the wax, and all the wax which remains on the foundation that is melted off is on the plate. As it passes to the box it deposits it, and being hot, and the foundation being hot, if you drop it on there it cements there, and it leaves no unsightly wax. It is as nice as though put in with the Daisy fastener. I have used it with success this season. Mr. Miller writes me that he has a machine simplified that works the same way. There is another thing, this machine does not in any way heat the foundation or box when you use it, so when you are using it in hot weather and putting foundation into sections it is all cool, so that it will drop down easily, and it doesn't warp or twist.

#### BLACK BEES VS. ITALIANS ON BUCKWHEAT.

"Will black bees gather more honey from buckwheat than Italians?"

President York—How many think that they do, raise your hands. (Seven responded).

President York—How many think the blacks will not gather as much as Italians? (About fifteen raised their hands.)

#### TRAVEL—STAINED HONEY.

"What is done with travel-stained comb honey, caused by being left on the hives for ripening?"

J. E. Crane—Bleach it.

Mr. Hershiser—Sell it for thirds.

#### ALEXANDER MODIFIED SWARMING.

"The Alexander method of modified 'shook' swarming contemplates setting the old hive, containing bees and brood, over a new hive-body furnished with frames of foundation, and one frame of unsealed brood and the old queen—a queen-excluder being placed between—so to remain until all brood above is capped, after which the old hive is set off on a new stand, and a laying queen introduced, all queen-cells being destroyed, or cut out, between setting on and setting off. When no increase is wanted, why not leave the old hive with honey-board on top for extracting through the season?"

Mr. McEvoy—I lost over \$300 one year by just following that out exactly that way, and I will give you my reasons. The bees were bound to crowd up to the brood, and then they crowded in a lot of pollen below, and it didn't work out right. The first year I tried it, which was over 20 years ago, it worked fine. The next year I turned the whole yard wholesale, and I lost over \$300.

President York called for the paper on "Comb Honey—From Nectar to Market," by Mr. S. D. House, of Camillus, N. Y. Mr. House read his paper as follows:

#### COMB HONEY—FROM NECTAR TO MARKET.

This is a broad subject, and has many essentials which are important in reaching the highest results. I have grouped a few of the most important essentials for your consideration.

First, a secretion of nectar, which depends upon location and an All-Wise Providence.

Second, a practical bee-keeper, who should be tactful and a willing worker,

and be able to adapt himself to the varying conditions that may confront him.

Third, a strong, vigorous colony of bees, with a young queen, bred from a strain that have proven themselves to be comb-honey builders of the highest order.

Fourth, appliances.

The second, third and fourth essentials depend entirely upon the individual to perfect, and their product will show how much time, thought and energy the bee-keepers have given to their vocation.

With a system along the lines which are to form the foundation of success, we plan to have very strong colonies at the opening of the honey harvest. The first step to this foundation is the re-queening of apiaries during August previous to the flow, and with the use of a very large hive, equal to 15 Langstroth frames. This large hive serves a double purpose, the breeding of a strong family, and the contentment of the family during the forepart of the season. I use a divisible hive, wintering in two sections, and give the third section in fruit-bloom. This large hive reduces the swarming impulse, or rather prevents it.

As the season progresses, and the nectar yields sufficient to store clover honey, we reduce our colonies to a single section of brood, by shaking the bees from the parts taken away, and giving supers to make the original hive capacity. This places the colony in the position of a partly filled hive, and they start in the supers at once, which is much desired. If we get the bees interested in storing honey, and give proper super room there will be but little swarming.

I usually give a super once in 7 or 8 days, these additional supers being placed next to the brood. We raise the supers about the time capping is commenced, and the honey is finished away from the brood where it gets less soil.

The foundation is put in the sections the same day it is to go on the bees, and is usually drawn out within 24 hours. I consider this of much importance; while the wax is fresh from its packing it is more pliable, and the bees work it out nearer like the natural comb. Second, when eating it the consumer does not get a tough

wad of wax that he knows not what to do with. There is no question but that the bees will build on old foundation by adding their wax thereto, but they should not be compelled to do it.

We usually tier three high, and when the fourth super is given, the upper one is taken away.

Comb honey should be removed from the bees as soon as finished, thereby preserving that fine appearance which is so attractive to the eye—and should be stored in the supers 10 to 15 days at a high temperature, when it should be fumigated with bisulphide of carbon for the wax-moth.

I believe the most practical super used in these modern times was invented by the late N. N. Betsinger, with its wire-cloth separator, giving the bees free communication between the combs, and past the sections longitudinally. Its hanging broad-frame keeps the sections free from propolis, and gives to a beautiful comb of honey a much nicer appearance.

I find many bee-keepers who are careless in cleaning sections for the market, and are selfish in grading their honey. When such honey is put upon the market, it not only affects the one who produces it, but every producer of comb honey, in as much as buyers quote the price of such sales which misleads the producer of a better grade into believing that the price quoted is the market value of No. 1 honey.

The great need of the bee-keeper to-day is more uniform package, grading and prices.

I beg to call your attention to our brothers across the Northern border, and to what they have accomplished in advancing prices and the bee-keepers through their strong organization. What they have done we can do.

S. D. HOUSE.

Camillus, N. Y.

J. E. Crane—Does Mr. House use the Heddon sectional hive?

Mr. House—No, I do not. The Heddon principle is there, but not the Heddon hive. The Heddon hive has a close end frame, and I have a non-spacing frame, 5 inch, with 6 inch body.

J. E. Crane—Don't you get more or less pollen in your sections?

Mr. House—In producing ten thousand sections I might have possibly a

dozen or so that will show here and there pollen; we overcome that feature if we place a new colony that has just been hived on two combs in the brood-nest to catch the pollen.

J. E. Crane—You recommend arranging them so that they wouldn't swarm. In that case you would keep them on the old combs?

Mr. House—Yes, practically old combs. Most of our honey is produced on new combs, or combs a year old. The combs are freshly drawn out, and undoubtedly brood filled therein, and honey or pollen, and then the super that is put below for them to build comb honey over, being most of it larvae and unsealed brood at the time it is reduced down, catches all the pollen next to the brood.

A. A. French—Do I understand that is for the extracting super?

Mr. House—No, that is the brood super.

Mr. Cook—In tiering up in sections do you put the comb honey supers underneath the other?

Mr. House—They come next to the brood.

J. E. Crane—How large are your supers?

Mr. House—24 sections.

Mr. Musgrove—When you reduce the number of brood frames and put the supers on for section honey, do you put a queen excluder between?

Mr. House—I certainly do.

Mr. Ross (Quebec)—Mr. House mentioned that one of the important features of this system was re-queening in August, or about August. That involves the catching of a great number of queens in a short time. Would he mind telling us how he accomplishes that?

Mr. House—We make a wholesale dequeening, and also a wholesale rearing of queen-cells from one of our best queens that has been tested out.

Mr. Ross—Is the actual finding of the queens done by the removal of the comb?

Mr. House—I use a method of taking two or three sections of hives and placing an excluding zinc about half way in the hive, making two spaces, above and below; I have several of those, and when we get ready to look up the queens we go along and leave a little smoke at the entrance and run them up through, and then we

come back and run them down again. We can run out easily 100 queens a day. We use one piece of zinc, but it gives an equal space above and below. Our zinc would run about the centre. As we smoke a hive the bees would run up above, and we turn that upside down, and they go back down through the smoke.

Mr. Hershisier—Any combs in the lower part?

Mr. House—No combs in the lower part.

Mr. Pettit—How do you use the loose hanging frames?

Mr. House—There comes a time when you want to handle frames. I don't want to spend all day to get a frame out, and in the matter of spacing, I can space ten hives while you are getting out one closed-end frame. We space up very rapidly, and after the bees have glued it to the fastenings, there is no danger of the frame coming away.

Mr. Hershisier—Are they close fitting?

Mr. House—Not very.

Mr. McEvoy—What is the width of the frame?

Mr. House—Seven-eighths of an inch.

Mr. Latham—Do you use hanging frames?

Mr. House—Yes; I shouldn't want anything else. I have a super frame, and one or two of those separators with me. (Produces same.)

President York—You can examine these at the close of the session. Mr. House will leave them on the table.

At 5 o'clock p. m. the Convention adjourned for the purpose of having a photograph taken, to meet at 8 o'clock p. m.

## EVENING SESSION.

8 o'clock p. m.

President York—I will ask Mr. W. D. Wright, Vice President of the Association, to preside this evening.

Mr. Wright—Ladies and Gentlemen, I would rather Mr. York would preside, but in as much as he is on the programme for the evening we will have to excuse him. The first thing on the programme will be "Comforts and Conveniences of the Apiary" by Mr. F. H. Cyrenius, of Oswego, New York.



Mr. Cyrenius—Everything we can do that facilitates our labor of course is a help to us, is a convenience; everything we can do to make our labor a pleasure is a comfort.

Bee-keepers have learned very dearly that to have good extracted honey it must be thoroughly ripened. I am not going to say anything on the subject only this, it carries us along after the season where we have, if we are not careful, a great many robber bees, we can't extract the honey as nicely at that time as at others. The fact is, I have had much comfort in extracting my honey this fall out of season; I am glad to bring you some ideas; I only finished my extracting last Saturday.

First there is the matter of bee tents. We have made these great big bee tents that we could tip over, get into and do all that sort of work. If you are going to have a tent I will show you one I have had a great deal of pleasure with. I bought a large umbrella, one of those five feet across, and then a piece of screen material 18 feet long and 6 feet wide fastened to the edge of this large umbrella, and that frilled a little as a lady's dress would be, so that a man could step all around under it. I have my hives in pairs so that I have plenty of room. I take in my comb baskets and get my combs out ready to extract them without any robbing.

Now I have something better.

The combs are taken from the hives, then passed through between these two brushes, sweeping off all the bees at one stroke, and passing the combs on to the comb carrier box without changing his position. The lid of the comb carrier is hinged with a couple of wire nails and adjusted so it is opened or closed with the foot on the lever. The brush can be fastened to a stool, or hive body, or with a pointed iron rod with a foot rest on side, so the foot will easily fasten it where wanted. The comb box made of berry crate material, with good handle to the cover. I take two of these comb carrier boxes at a time. This convenience saves much time, and positively **no robbing**. During extracting days I have by the watch taken the combs out of two hives, brushed off all the bees and placed the combs in the carriers in only 4½ minutes.

My apiary has 3 long, double rows of hives, with a wooden track railroad the entire length up to the bee house. The car holds 6 hive bodies. It is a pleasure to load this car and go through the apiary. Try it.

### Honey Strainer.

Now, another thing about extracted honey. I am not here to discuss the merits or demerits of ripened honey, but there is one thing I do like. I like to have my honey well ripened and have it put up in cans the same day it is extracted. The last extracting I did I had a tub that would hold half a barrel, and in that tub I laid a cheese cloth across, and sunk it down almost to the bottom, above that I took a white mosquito bar and doubled it, and put that down within about four inches of the bottom of the cheese cloth, then above that about the same distance I put a single cheese cloth, then above that I put wire cloth, about four meshes to the inch, and then above that only just a little hollow I had coarse wire cloth, two meshes to the inch; every one of those strainers contributed their part in taking everything out of the honey. Then I had a gate in the bottom of it, and I had this sitting up just above the scales the right distance, and leaning against the arm of the scales I had this little bell striker and when I got just the weight I wanted that told me my can was full of honey.

### Hive Indicator.

Tomorrow on the subject of rearing queens I want to show you a very handy indicator for telling what my queens are so that I can look from the front of my bee yard to see what I have got. I am breeding from the very best queens I can buy or raise. Here is a pointer made from a piece of old broken section; when that points right straight out it doesn't mean anything. I give a queen credit or demerit for every good or bad point her hive possesses. If a hive winters better than any other hive I give them a little credit by lifting up the pointer; then a little later if I find they are breeding up faster than the other hives I give them a little more credit; later, if I find they are gentle to handle, they get a little more credit; if they are the other way this pointer

goes down. I mark every good and every bad quality that I can get against a queen or for a queen, except color. There is no use marking color, because we can see the color by looking at them. When I get that pointer up, I say those are my best queens, I know where to find them any time of the year.

#### Apiary Cage.

Now, I want to call your attention to a queen cage for the apiary; it is made of a narrow piece of wire cloth with a selvage for the plug end nailed to a stick in the form of a W. If you want to get a queen from any hive, you put the open end down over her, and in a moment she is in the cage; if you want to get some more bees you can scoop them up in the same way; and no matter how you put them into a hive the bees can always get to the queen, and feed her. I find it the very thing for the yard. But it is not a mailing cage. If I was going to ship a queen away I would scoop up my bees the same way. I want to get young bees with the queen for shipping. I scoop them up and put my shipping cage over them, and I either smoke them up or immerse them slowly in a dish of water, and they run up in the shipping cage.

Now, a number of years ago I gave Mr. Hutchinson one of my queen cell finders or supertighteners. We will get at this more specifically tomorrow, but I think while I am on these special things I will call your attention to it to-night. If we have a hive here with a number of supers on it tiered up, and we want to examine that hive as to its queen cells, here is a little thing which I use, this has eight bearings on here. Now your hive is all solid, and with a little smoke you can blow that right up and see whether you have any queen cells there or not, without overhauling the hive. I find that a great comfort. I can look through 30 or 40 hives in an hour, tin them up like that. Tomorrow I will show you a little more in my queen rearing talk how we will handle it.

#### Tools Painted White.

All the tools that we use about the bee yard should be painted white; that gives the greatest contrast of color

that we can use, because if they fall down in the grass we can find them.

#### Use Curtains.

Another thing that I enjoy very much is to have a few curtains, some large and some small, and if you are taking off some hives and robbers coming, you can throw those curtains over them.

#### Trap the Robbers.

I think it is a good idea to have a window near the floor of your bee houses, and just outside you can have a hive and have it provided with a bee escape so that you can have a swarm of bees outside to catch any bees that we take into the honey house that are too young to find their way back to their hives. You will save a great many bees in that way. I thank you for your attention. (Applause).

Mr. France—I would like to ask Mr. Cyrenius this question: In using this brush there will always be a little drippage of honey from the broken bur or brace combs. When the brush becomes a little daubed up with honey do you wash it?

Mr. Cyrenius—No, the bees take care of that. There is very little in that; there is none whatever in sealed combs. You can wash the brush if you wish. I have never had occasion to wash it, because there are always bees around it, and they clean it right up.

Mr. Stevens—The honey is ripe before you take it off.

Mr. Cyrenius—It is just as ripe as you can have it, very little of it is unsealed.

Mr. Garabrant (New Jersey)—I would like to know how many have ever used what is called the ordinary wall scraper. I find it one of the handiest things I know of to keep things clean. I use an ordinary trowel sometimes, and find it very handy.

Mr. Hershisier—I might offer one suggestion about straining honey. I use in my out apiaries ordinary barrel tanks, and for a strainer I scratch what is called an americabo coffee sack, which hasn't any coloring matter in it, over the top of the barrel, or use the ordinary cheese cloth, and when that gets clogged I have a book,

and I just catch the four corners up and hang it up above the honey, and while the first one is straining the second one is getting clogged up, and when they are sufficiently drained they are ready for use again. There is no need to go to the trouble of adjusting this cloth over the barrel every time it gets clogged.

Mr. Cyrenius—Look at it in this way. I thought very seriously of the suggestions of Mr. Hershiser, but usually we have got some straining to do anyway, and I know we can get my honey put up in the cans and sealed up as quickly as I can from the time it leaves the hives; I believe it holds the flavor better. When you come to put it in large tanks and evaporate it you are losing a great deal of the delicate flavor, which, once lost, never can come back. When I leave the yard my honey is all in cans and sealed.

#### Prevent Robbing.

Mr. Stone—I followed the plan of taking honey from the bees this year in the robber season without any tent and without any brush, or anything of that kind. Just make a box very tight so that the bees can't get into it, and you can have it large enough to put half a dozen supers in at one time; let the supers be comb or extracted honey. I use the brood-frame size for extracting, and have a cover that fits very tight; I put the surplus cases of honey into the box, and you can put in as many as you want, and pile them zig-zag so that the bees can get through. Then I put the cover on the box, and it fits tight, and in that box cover I cut a hole five or six inches in diameter, and if the box is large, cut more holes. Then I put a wire screen in that like a cone with a hole at the top large enough for the bees to get out, and they will fly out there faster than you can count them, and not one of them will come back. If I put combs into that box one day and go back the next day I would not find a bee in the box, unless it was a case where a queen happened to get up into them, and then the bees won't leave it. I haven't used any escape on the hives, and I didn't have to brush any bees, and I never took a bee to the honey-

house, and I never saw a robber around.

Mr. Cyrenius—How long does it take the bees to get out of that box?

Mr. Stone—They will get out in one night.

Mr. Cyrenius—You don't know how much I appreciate the benefit of that animal heat in the combs, and I want to do the extracting while I have that animal heat, and do it right away. I have tried this plan, and tried a thick cloth over the hives, but, as the last speaker says, it generally takes till the next day to get all the bees out. You might use a bee-escape just as well.

Mr. Stone—You don't get the animal heat in one night.

L. C. Root—With regard to sealing the honey as soon as it is taken from the combs, I used to think that the honey would cure if it was left in an open vat, that it was better to let it stand, and it would cure in the standing; but I found in purchasing casks to put honey in, that if I purchased them where they were thoroughly kiln-dried that they were so dry that if you put them in a moist place the hoops would burst, and if you took those same dry casks and put your honey in it would shrink them so that the hoops would drop off. That was proof to me that honey was absorbing the moisture rather than throwing it off. I have found lately that the honey seemed to me to be of much better quality, and held its flavor better, to can it and put it into the 60-pound cans and screw the top on tight. I like it very much better. I believe that point is extremely well taken.

Mr. McEvoy—That is just what I have noticed on sealing it up the very day. I strain it through double cheesecloth over barrels. If it won't go fast enough I use five or six barrels. If one barrel is not quite full I draw sufficient from another and fill it, and I put newspapers over that and shut the air off at once, and the barrels are waxed; it holds the flavor and it is choicer honey. You can't afford to let anything out of clover; you want to hold all you have got.

Mr. Wright—We will now listen to the address of President York.

The President then read his address as follows:

**PRESIDENT YORK'S ADDRESS.**

Ladies and Gentlemen:—We are met in the 41st annual convention of the National Bee-Keepers' Association, in a city of great historic interest, as it is the oldest surviving settlement in the 13 original States, having been founded in the year 1614. Even "Yankee Doodle" was written in a house still standing, on the east bank of the famous Hudson River, opposite Albany!

We are met in one of the greatest honey producing States of the Union; a State which contains, also, some of the best and most extensive bee-keepers in all the world. It is a State rich not only in honey-production but also in almost everything else that benefits a civilization like ours. Surely, we who have come from a distance are honored here by friendships and associations that we will carry with us for many years after this meeting.

This convention represents the greatest association of bee-keepers ever gotten together in this country. While other countries may have organizations of larger membership, no doubt our Association represents a greater number of extensive honey-producers, and more pounds of honey produced annually, than any other similar organization in all the world. Hence, in many ways, the bee-keepers of this Association are leaders in almost everything that makes bee-keeping worth while anywhere. Therefore there is a responsibility resting upon us that is upon no other class or country of bee-keepers. The question is whether we will measure up to our opportunities and responsibilities in the years to come. If we are to do this, our organization will have to progress faster than it has done during the past few years. The things which this Association has done in years gone by will not continue its success in the years to come. The new times require new ways of doing things. The organizations of the future must be far ahead of those of the past, in what they do to advance the interests of their membership, or they will fail utterly. The question then arises, what can this Association do to help the large membership which it has secured, and produce for them the results which

they have a right to expect? This is a big question. I do not feel that I am able to answer it fully, or perhaps even partially, but I am going to have the hardihood to leave a few suggestions with you, which, I hope, or at least **think**, may lead to something better in the months and years just ahead.

While the National Bee-Keepers' Association has done most excellent work for its members during its many years of existence, it seems to me the time has come when some advanced steps need to be taken. For a number of years its principal object has been that of defending its members in their right to keep bees in certain locations. Ignorant and jealous neighbors have often been "a thorn in the flesh" of some bee-keepers, but when their complaints were taken into the courts of law by the Association, we have won in nearly every instance, and rightly so. That very important feature, or object, of this Association is rapidly passing away. In other words, there is not now the demand for such defense, as **the right to keep bees** has become so evident that to-day it is seldom questioned.

As stated in Article 2 of the Constitution of this Association, its objects are: First, "to promote the interests of bee-keepers; second, to protect and defend its members in their lawful rights; third, to enforce laws against the adulteration of honey." The third of these objects is practically taken care of by the Department of Agriculture, which is enforcing the pure food law in a wholesome way. Then it remains for us to consider the **first** object, of "promoting the interests of bee-keepers." It is true the other two objects are in the interest of bee-keeping, but as they are taken care of, it seems to me that we should begin at this convention something looking toward the promotion of one of the still **greater** interests of bee-keepers. I refer to the disposition of the honey product, and advertising its use. This means a business organization more than ever.

In the first place, the Board of Directors, number 12, is too large, and they are too scattered. Three, or possibly five, capable men are sufficient. It takes too long now for the

general manager to be permitted to do anything. He must first write and get replies from all 12 directors, and by that time it is probably too late to act. The experience of almost anyone is, that a **committee of one** is the easiest to get together to do anything! Of course, I would not advise a board, or committee, of only one, but I think that no one will question that a board of three or five members would be more efficient, and accomplish all that a board of a larger number could do.

Second, our annual meetings can never be more than a small representation of the whole membership. State meetings can be fairly large, and can consider many things that would be of interest to the National Association. I would have the State associations **branches** of the National, and not merely, as now, individual members working independently. The State branches should elect at their annual meetings one or two delegates to the National convention, and then these National meetings should be a law making body for the whole, and meet at some central place, the expenses being cared for out of the general fund. Suppose this present meeting were made up of delegates from all the States and Territories, who had been elected and given authority to represent their State and Territorial memberships; then we could have an attendance of about 100 of those most capable and most interested and, doubtless, the best able to consider the things of vital interest to the bee-keeping industry throughout the whole country. We must get away from discussing the minor things of bee-keeping at our great annual National conventions. The matters of the best way to produce honey, the best way to introduce queens, and the best way to do a lot of things in bee-keeping can best be left to the columns of the bee-papers, all of which ought to be taken and read by those who desire to accomplish anything worth while in bee-keeping. These National gatherings should be devoted to the larger things of honey-production. They should be business meetings throughout, and have to do mainly with the marketing and distributing of the honey crop, beeswax, etc. If bee-

keeping is ever to be put upon a business basis in this country, there must be co-operation in marketing the honey crop. The producers of citrus fruits in California during the past ten years have simply worked wonders for those engaged in that line of business, and they have done it through co-operation.

The time is rapidly passing away when a single producer in any line can make a success all by himself. These are "get together" times, and bee-keepers have lost much during the past decade in not being properly organized so as to protect their own interests, and realize a proper return for their efforts in the production of honey. Again I say, leave the methods of production and the details in that line to the bee-papers of the country, but the larger and more difficult work—the marketing of the product—let that be controlled by a National organization made up of the branch organizations in the various States and Territories.

Third, we should all help to make the State conventions a great success. If possible, have some National officer, or officers, always present. Let the National get out the programs for the State conventions, or at least assist them in doing it. By unitedly working together, every State convention can be made "a hummer."

The honey-marketing question is surely a live one. The bee-papers can not deal with it in a practical way as they are not in a position to do so. As before mentioned, they can tell the bee-keepers **how to produce honey**, but when it comes to **selling**, it is another question. The beginner desires to know where to sell, and how much to charge for his product. This advice can be satisfactorily given him if someone is studying the markets, and thus is in position to know **how to advise**.

This is not a new thing I am talking about. The Colorado and Michigan Associations have been working along this line for several years, and they are gaining ground every year. The Ontario Bee Keepers' Association is also making progress in the same way. Our National Association will soon have to "get in the swim," or it will pass away. It can't exist long now by simply drifting. There is no

such a thing as standing still in an organization of this kind; it must advance or it is bound to retire. Will we stand by and see it go backward?

The time has come, I believe, when the National Association can well afford to employ a man to look after this work for them. One live man—I say a live man—devoting his whole time to organizing the bee-keepers of this country, could make the National Association go forward by leaps and bounds, and could in a very few years place the whole bee-keeping industry on a much safer footing than it occupies today. It cannot be done, however, on the small compensation offered at the present time. The dues must be placed at \$1.00 a year and that would furnish funds for accomplishing the work. People are usually willing to pay what it costs to be well served. You cannot, for very long, expect to get something for nothing, as most men cannot afford to engage in the philanthropist business. It is true, we have had very unselfish and generous work done in the interest of this Association, but its membership should no longer expect that any man in these days can afford to devote his time and talents to advancing their interests without being paid for it, and well paid, at that. Brains and business ability cost money these days, and the bee-keepers of this country can well afford to pay for them. For when they are set to work, they are going to return to the individual bee-keeper tens of dollars for the \$1.00 membership.

It is true that some radical measures will have to be adopted. No doubt the Constitution of this Association will have to be amended, so it will permit the doing of things that need to be done in the best interest of the members. If what I have suggested meets with the approval of the majority of those in attendance at this meeting, I would recommend the appointment of a committee for the purpose of suggesting amendments to the Constitution, and that before adjourning we take such action as will be necessary to bring about the changes in the Constitution that will permit the carrying out of what the best thought of this convention feels should be done in the future.

Without in any way suggesting a

threat, I would like to say right here, that it has been intimated to me that unless the National Bee-Keepers' Association takes an advanced step along the line I have indicated in the foregoing, another organization is likely to attempt to supersede the National. This, of course, none of us want to see done. The National should lead, as it always has led; but in order to continue doing this, it must adapt itself to the demands of progress and advancement that come with each succeeding year. Let us consider carefully things that will make for the greater success of bee-culture, and let us not hesitate to go forward, or at least to do what we can to advance a little the larger interests of our constituency—throughout the domain of our membership.

We are engaged in a wonderfully interesting vocation. Its methods and main product appeal to almost everyone. Where is the person who cannot be interested in the marvelous habits and occupation of the little, busy bee? I have personally held an audience of several hundred children almost breathless while I tried to show them, through the stereopticon, the wonders and glories of the hive. Any one can do that who knows anything at all definitely about the honey bee and its honey. I believe it would pay this Association, when properly organized, if it can, at not too great an expense, keep some good lecturer on the road, telling the people something about the bee and its work, and incidentally emphasizing the high value of honey as a daily food.

When this association is running as it can run, it will have ample funds for advertising honey in various ways. No doubt it can establish its own brand—that can be used by all the state or branch organizations throughout the country. With the wide co-operation that I have here suggested who will say that every pound of honey produced every year, will not bring a higher price, and thus more profit to the producer? And not only will better methods of production be encouraged, but more honest grading and packing will be compelled. The brand of the National Bee-Keepers' Association placed upon any package of honey, should be a guarantee that it is absolutely all right in every par-



ticular. It may be that there will have to be various centers in each state, where the crops of its members will be sent for proper grading and packing, and then be shipped in car-lots to the larger cities, where a demand has been created in advance. A more equal distribution of the honey produced can be secured in this way.

If we have one or two energetic, up-to-date business men devoting their whole time to the management of this organization, there is no reason why they should not know the condition of every large honey market on this continent, and thus be in a position to supply the markets properly, and bring about a more equal distribution of honey than at the present time, when often some of the markets are overloaded and others are unsupplied. This should not be, and need not be, if there is someone whose business it is to see that the honey product is distributed as the markets demand. This is done in other lines of production, and I see no reason why, with the proper co-operation and affiliation of local organizations, it cannot be done as successfully for the honey-producers.

But I must not go on longer. We have the field in which to work, but it needs proper cultivation. It needs wise and business-like management, in order to realize a just financial return for all the labor that has been bestowed in order to secure a large crop of fine honey. Bee-keepers are not selfish; they do not want more than their product is worth, but I insist that they do want, and deserve, a fair price as compared with other food-products, and this they are not getting today. I believe it is their own fault. No one will attend to our business for us; we must do that ourselves, or take the consequences. The consequences are often rather serious. Why not plan for the largest success, rather than be satisfied with something small, or less than can be obtained if properly done? While we are doing at all, we might as well do things right. We may as well magnify the business of honey-production. I believe we can easily do this by a system of co-operation and management, and I think the National Bee-Keepers' Association is the one organization that should make the first

move toward securing these important conditions and results among the bee-keepers of this continent. The questions to be settled are: Will we do it? Are we big enough to undertake this great work, or will we drift along as we have been doing in the years just gone by? I believe the time is opportune to take an advanced step. I realize that it cannot be done rapidly, as the best and most lasting things of this world are of slow growth, but I believe we should begin to move. Any why not this be "moving day" along these lines?

GEORGE W. YORK, Pres.  
Chicago, Ill., Oct. 10, 1910.

Mr. Wright—Does any member wish to touch on anything along the lines suggested in the President's Address? He has given up a very great deal of food for thought; there is no doubt a great deal can be done along the lines suggested, if we take the proper action.

Mr. Davenport—Moved, seconded by Mr. Davis, that a committee of three be appointed to consider the propositions made in the able address of the President, and make such amendments to the Constitution of the National Association as they may deem proper.

The Vice President put the motion which, on a vote having been taken, was declared carried.

Mr. Hershiser—Are we going to pass this question with out any discussion? It is very important. It seems to me there ought to be some discussion and a few thoughts on it. The desirability of getting a higher price for honey—raising the market price—seems to me to be so evident that no one would think contrary to it; but how we are going to bring it about is a very large question. I think it lies with the individual bee-keepers, largely. It may be that it is something that may eventually regulate itself, but there has been practically no progress in the last fifteen years towards the raising of the price of honey, while everything else has risen. Once in a while some person with the hardihood comes forward and says we are getting good prices for honey. I can remember, since I have been keeping house, bacon has gone up double the price; wheat has

gone from about 42 or 45 cents in 1894, up to double that price now, and the price of food of all kinds has gone up. The people raising a few chickens in their back yard to furnish a few eggs say they can't do it, and come out even unless they get 35 or 40 cents a dozen, and it seems everything we consume has gone almost double, while the price of honey has hardly advanced. I went to a groceryman I trade with in Buffalo; he sent for me and wanted to buy some honey. He said, "How much is it?" I said, "16 cents a box." He said he could buy honey from somebody in the northern part of the state of New York at 12 cents. I said, "It costs a little to ship it down, and there is some breakage." "Yes," he said, "but there is more margin. I think I ought to buy it where I can buy it a little cheaper." I said, "You can't buy it of me any cheaper. When you were selling bacon at 14 cents, I didn't receive any more for my honey, and you want me now, when bacon is almost double in price, to give you a reduction on my honey." He saw the point and paid my price for the honey. Stick to your price; make a price and stick to it. Don't let the groceryman beat you down. Just as soon as your groceryman begins to fight with you, there is also a fight with the producer of the goods and the person going to distribute them; he wants to get them as cheap as he can. I, on the other hand, being a producer, want to get my goods measured in the value of other things I have to buy. It is not a question whether 10 or 15 cents for a pound of honey is a high or low price, it is a question of what it will buy in other things. It is a question of how to get at it. I appeal to the individual bee-keeper to get for your goods what they are worth, and don't have a panic every time you get a little honey.

Mr. Davis—In seconding the motion as it was stated here, I wish to say that the President's address embodied some very good suggestions. It has been my privilege to state before in conventions of bee-keepers the necessity there is for getting together. I take exception to the individual bee-keeper trying to do anything by himself; I personally can't see how it can be done. You

have been doing it ever since you have kept bees; each one has tried to get the best you could from your dealers, and are you getting it? Personally, I don't believe you are; not when there is such a vast difference between what you get for it, and what the man that eats it pays for it. Now, there is something in the difference between what you get for it and what he pays for it, that is coming to you. If the individual could do it by himself there would be no Standard Oil, there would be no trusts, there would be nothing like that for us to fight. We haven't got to fear those who are right here with us; we have got the little fellow with his store soap-box hive of bees to compete with. He will come in and sell all the honey he can make in one year for 9 cents a pound, and he sets the market price in your immediate locality, and they think you are an awfully mean fellow if you don't sell your honey as cheap as he does! You have to get together, and the fact that there was no discussion on the subject seemed to me it was so self-evident to this intelligent body that it didn't need any discussion. There is absolutely no other way of deciding it but by getting together.

Mr. Hershiser—I wouldn't have it understood that I don't appreciate the value of getting together; I appreciate that as much as anybody does, but I desired a little discussion on this question in order to sort of emphasize the necessity of getting together; and as appealing to the individual bee-keepers, I certainly mean nothing personal to any individual bee-keeper; I mean the individual bee-keepers as composing a large class, each individual trying to do the best he can. The last speaker says he doesn't think the individual bee-keeper can do anything. While that is not an important matter, I want to relate one little incident that one of the inspectors of this state was telling me. A while ago, during his inspection, he came across a bee-keeper who had some 1,200 or 1,400 pounds of honey of all grades; some very nice, and some not so nice, buckwheat and other honey, and he was looking it over. He said to the inspector: "I have that honey, but I don't know what to do with it." "Why," the inspector said,

"what do you want for it? What is it worth?" He said, "I would take 6 cents a pound for it." The inspector replied: "It is sold." So it was packed shortly afterwards. This inspector came around and loaded it on his wagon, hauled it down to the village, perhaps half a mile or a mile distant, and sold it for 12 cents, right where this individual bee-keeper could have just as well gone and got a market for his honey, as to have felt he was distressed by having a few hundred pounds of honey which he didn't know what to do with. If I have made any mistake about the facts in this case, I appeal to Mr. Stevens.

Mr. Davis—I will qualify the remarks I made, relative to the individual. I inferred from the tenor of Mr. Hershiser's remarks that he thought we could do better scraping, each one for himself.

Mr. Hershiser—No, I didn't think that at all.

Mr. France—To me, this paper is worth deep consideration; it is the paper of the Convention. We realize all there is in it. The next question is: Are we going to settle right back and let a committee of three do it all? They can't accomplish it. We are all part of the committee, and unless we all do something, this organization drifts as it is, and it is time we were doing, not as we have done, and the recommendations in the President's address are well worthy of our consideration. In fact, I think it is almost worth while to take them in detail. Yet, if this organization is going to develop, and do things, and grow, those things have got to come under consideration, and that in the near future. Bear with me if I take an illustration on the first proposition, that the State associations should be branches of the larger, the Counties branches of the State, and make it in systematic shape. The illustration I want to bring before you is this: I was called from home away down here to your State to attend your State and County conventions at the expense of the state; I just got home when I was called right back to Pennsylvania. Look at the extra car fare. I said: "I won't do that again." It was because there had not been an understanding beforehand. If we need

a success, if we put it in systematic shape, that can be avoided. For instance, if you want an outside party to go to these varied places, make your meetings immediately following one another, so that that party can travel from one to the other. Then, again, several of the State Fairs are looking for the some one of authority, as judge; one who is capable; and how quickly would they accept and appreciate recommendations from a National organization! In our State every County Fair looks to the State Horticultural Society to recommend a horticulturist for judge, and he must be a member of the Horticultural Society. Why couldn't that apply to the bee-business? If we want laws, it is co-operation that gets them. Therefore this same question of system comes in again. The National has done something, but the work is just begun. Our dues in the National Association are not such as to place us in a position in which we can do these things. I am censured sorely for not doing more, when I have nothing to do it with. I must keep within the limits of what the treasury contains, and not do as I did the first year as State Inspector, and use up the little amount that was allowed me, and go into my own pockets some \$40. The State shook their heads and said. "No, you can't have that, only what the State has allowed." And so with the National, we must not expend more than is in the treasury. Last year, at the close of the financial year, we had \$509.00, and today we have \$533.00 and all debts paid up. Now, I can't do much under these conditions. Many of the State Associations find, where we are collecting dues of one dollar, saving one-half of that dollar for the State Association and one-half for the National, that they can't exist, and can't keep on doing good on 50 cents. I believe it is four States already that have decided they must change their dues, and have the dues to the State Association one dollar; and then the National stands back and says, "Well, we will take a half of a dollar more to carry out the National work." I leave it for your consideration, that if we are going to do something we must have something to do it with. I have been curtailed as to the amount of printed material I could send out

in that line alone. I have sent back to our membership within a very few pennies per member, in actual cost, their dues in printed material this year, and still I am handicapped. We have our President's address which says, it is time now to do something; not so much discussion, but get down to business and do.

Mr. L. C. Root—I am perfectly delighted with what the last speaker has said: I agree with him fully in regard to the importance and value of the President's Address, but the thing I am most pleased about is the reference to the necessity of organizing. I have been, as some of you know, interested in this Association for a long time, particularly in the earlier days, when it was the North American Bee-Keepers' Association, which, you will agree with me, did some good work, and I have been an advocate of more thorough organization. I believe I have felt it as much as anyone in connection with the work, and recently my idea was so strong in regard to that, that I was influential in organizing an association in Fairfield County, in Connecticut, with the thought in mind that it was one way to strengthen our State organization. I wish every county in the State of Connecticut would form a county association and work for the interests of the State convention, then that our State convention should go to the National with more people representing it than we have this time. It appeared from what some of the speakers said that the organizing of the County convention would hinder rather than strengthen the State organization. For this reason I am specially glad our friend made this strong point. We need the County organizations to work and strengthen the State organization, and then throw the force of the State organization to this National Convention. I think we ought to act.

President York—I would like to hear from Dr. Gates; I believe he can say some things to us along more lines than marketing the honey product. We should strike out with the intention of doing something. I think this is Dr. Gates' opportunity to tell us something we can do.

Dr. Gates—I have not planned any remarks for this occasion, but during

the last paper I couldn't help but think of the work which is planned for Massachusetts. The outline of the President's address, the organization scheme, is one which I have had in mind for our State. I have just been talking with Mr. Stewart, and getting a little information as to the organization of New York State, and I propose this winter, if possible, to organize an association in each of the Counties, or possibly combine one or two Counties of Massachusetts, and have these local organizations tributary to a State organization, and then, if possible, (and if it is considered advisable), have them a part or affiliated with the National organization. I think, perhaps, Massachusetts has had less representation in the National, than she should have. I know when I was actively connected with the Worcester County Society, the question of joining the National came up, and, if I may, be so frank as to state, the vote was against joining the National, because that local organization at that time couldn't see any benefit coming from the National, and I think possibly they were in a measure justified; but the point is, they should not gain that idea; there should be no occasion for it; they should feel rather that they could not afford to do without membership in the National, and if some scheme as has been suggested tonight were brought forward, I would be very pleased to see it in working order.

President York—I don't want to say much more myself, but there are some I would like to hear from. I think Mr. Byer could tell us something about the organization work in Canada, in a very few words.

Mr. Byer—Mr. Pettitt will be more able to do that.

Mr. Morely Pettitt—I was just thinking, as has been said, that our President's address is really the most important subject that we have up for consideration tonight. We all understand pretty well about the producing of comb honey, and extracted honey, and those things. It is now largely a matter of selling. Mention has been made of what has been done in the Province of Ontario, Canada. I just wanted to make a little correction in what our President said this afternoon, something about Ontario

being too small. I would like to bring before the National Association that we have representatives here from Ontario as well as Quebec, and we are doing things in the bee-line there, and a number of your members come over to our Ontario Association, and we are glad to have particularly the men from New York State, who come there almost every year, and others; and while I am on my feet, I would like to say that we have been looking from year to year for a meeting of the National at Ontario or some Canadian point; it has not been there for some years. An invitation was issue from the Ontario Association to this convention to come to Toronto as soon as possible.

Now, with reference to the work that is being done in Ontario in the selling of honey. About five or six years ago the suggestion was made in the columns of the Canadian Bee Journal, and then at the Ontario Convention, I think the meeting at Barrie the first time—Mr. Byer was connected with these references, and I think I made some references myself in the Canadian Bee Journal—and out of that grew a committee; it started as a honey exchange, which didn't do very much in the way of organized selling; it settled down to a crop report committee. This crop report committee, we were fortunate in the selection of its members. The man on this work is the important factor; the man in charge of the selling organization is the whole thing. If you get the right man it goes; if you do not, it doesn't, as all who have been associated with selling organizations know well. This committee, in the first place, was composed of Mr. Byer, Mr. Couse (who is a business man, and was Secretary of our association for 21 or 22 years) Mr. Sibbald, and one or two others, whose names I can't recall; anyway, they were men who were honey-producers, and business men in the selling of honey and in other lines. These men meet annually to consider the crop report. The crop report is obtained in this way: We send to our mailing list of bee-keepers a post-card with a crop-report form on it; this is sent about July 20th, I think, and the report is expected to be in by August. This is sent to our mailing list, I am making this a part of my work at the

Agricultural College at Guelph, to collect a mailing list of bee-keepers in Ontario. I now have about three thousand names and addresses of bee-keepers in Ontario; I haven't nearly all of them yet, but I am getting them from the inspectors from year to year. We send out a thousand post-cards with the blank to be filled out. I have forgotten just the number, but it is in the neighborhood of 500 reports we received from bee-keepers, stating their crop of white honey. Those 500 bee-keepers reported 1,375,000 pounds, in round numbers, of extracted and comb honey, largely extracted. They also reported on these cards the number of colonies they have, what their crop was last year, and the prices they obtained last year, and comparing this year's crop with last year's crop, also taking into consideration the fruit crop and other things which might bear on the prices of honey, this committee estimates what the price of honey should be for this season. This committee has done this sort of thing now for about five years, I think it is, and have never failed. The prices which have been received by the bee-keepers for their crops, at least by the majority of them. There is no combine, no organized selling as such, simply looking to the report of this committee. It has come now that the producers largely look for this report; the buyers also look for this report, and there is not much trade done in selling until this report comes, and the buyers have just about made up their minds, as far as white honey is concerned, that they might as well depend on these prices, because those who hold the bulk of the honey in Ontario will hold for those prices and get them.

Now, further than that, in the matter of organized selling, I have no doubt a good work could be done. It is very difficult, but it is being done by some of your states, and some groups of States combined, I understand; and while it seems like a very large mouthful, to control the whole output of the United States, provided you can find the man, or body of two or three men with the business ability to do this work, it can be done, but, as has been stated, there must be the money forthcoming to run the business. How the business manager of the National has continued to do



the work that he has done, on the appropriation or the money he receives from the membership fees and on the allowance he gets for his own time, is more than I can understand, because it is a tremendous work that is being done, and the possibilities for more work are so great, and of the dollar-and-cent income to the honey-producers of the country the possibilities are so great that the investment of a mere five or ten or fifteen dollars membership in the National would be as nothing to the benefit that might be received from this work. (Applause).

Mr. Wright—We are very glad to hear from Mr. Pettit; we know the Canadians are wide-awake.

Mr. Stone (Illinois)—I will state a little circumstance that resulted in a good deal. At our State Fair at Springfield there were three exhibitors; they all had about the same price for their jars of honey beforehand, but we found when it came to the close of the Fair, a fourth man was selling less per jar for the same size than the others were: I had made out a card that gave the size of the jar, the weight of honey that was in it, the price of the honey and the price of the jar, by the gross, and the total price of each of the jars. Just as soon as the other men found I had that, they all got it, and that is the established price for extracted honey in Springfield today; and there is no honey sold in the jar but what is sold at that price. The commission merchants can't sell extracted honey at all. There was one of them who had some shipped in, and he offered it at eight cents a pound. It was fine alfalfa honey. He couldn't sell it at all. The extracted honey that is sold there is sold by the bee-keepers that live in that vicinity. The comb honey we let the commission merchants bring in and sell. Whatever the established price is throughout the United States, the regulated price, it doesn't interfere with our extracted honey; we sell that at fifteen cents a pound, and add the price of the jar to the honey.

A. C. French—I attended the Valley Fair; we had three exhibits there, and each one who sold honey had to take out a license and pay \$5. Now, each one at the Fair sold honey at the same price, no cut, and an honest pound in each jar. We got 25 cents a

pound retail, and 20 cents wholesale. Quite a number of merchants were ready to pick it up at that price. One Boston merchant came there and wanted to know how much sugar I put in. I told him about ten pounds to a gallon. I thought that was sufficient. He said: "It looks like it." I said, "now the proof of the pudding is the eating. If you want to taste it, pick out any jar you have a mind to in the exhibit." "No," he said, "you pick one out." "No," I said, "that is your privilege, not mine." There was a rack on the showcase where the light didn't strike it, and it was dark, and he picked one from that. I said, "Hold that up to the light." He did so. I said, "I want you to know that the statement I make is all right." He tasted it and said: "I would like four cases of that." I said, "you are paying a pretty good price for sugar." He said all the sugar that was in that he could put in his eye. We have one price. If I can't get my price for my honey, it stays with me.

Mr. Garabrant—With reference to the remarks of Mr. Pettit, about some one establishing the price and supplying stores, I might say that for three years past, several times I have not quite been able to get the market price, but I have asked them if they knew what the market price was. I think in only one case have they been able to find any established market price, unless they chanced to have bought a case of honey in New York City. Some committee such as he suggests should distribute some sort of information to storekeepers, as to the market price to pay the local producer, and they would know when a man came in whether he asked too much or too little. My experience has been that the local producer sets the price in a great many cases, either high or low, as he chose to see it.

L. Zotner—When you mark it grade No. 1 honey it should be No. 1, and not No. 2. That is the way to establish a price. When you go to a wholesale man and tell him you have No. 1 honey, and it is put up in a good, presentable shape, you will get your price.

Mr. Hurley—I would like to say a few words on the address of President York. I think we all owe a debt of gratitude to Mr. Hershiser for opening



the discussion. I was afraid when Mr. York sat down it might pass without discussion. This is the most important matter that has been brought before this convention, because it consists of a question of the life of the association itself. Now, there has been much said tonight about what ought to be done, but nothing practical has been suggested. I would like to suggest a practical plan, which might be worked out. I think it could be worked out, and should be worked out. I have here in my hands a magazine called, "The World's Work" for October, which describes what has been accomplished by co-operation in England by a few weavers, who, 60 years ago, scraped together a few pounds and started a small co-operative store. After working enthusiastically and making of that great co-operative question, almost a religious question, they have succeeded, after 60 years, in organizing a large business enterprise that is greater in its volume of business than the Carnegie steel industry in your country today. These few weavers who started this co-operative enterprise have succeeded in accomplishing a work, which, in 1908, did a business of \$517,000,000 worth. Now, let us have something practical suggested at least for the committee to work upon. My idea would be this: the basis of the National, as suggested by Mr. York, should be the State Association in conjunction with our Provincial Association, because I am gratified as a Canadian that you permit us to join with you in your National Association, and you have thereby practically made it an international association. If some one State would take this matter in hand and organize a co-operative store, or a co-operative selling center, and place a man like Mr. France, or someone whom he might name or select, in charge of this selling center, and have all the bee-keepers in your State on your roll and have your entire honey product shipped to this selling center, and have it classified according to its quality, and there have it sold throughout the State and wherever you could find a market—have one selling point to control the sale of that honey. You would then have the commencement of a selling organization for your entire output of honey.

I believe much could be accomplished if you would make that an aim. It may appear difficult to start such an enterprise, but I believe it is possible; I believe that the enterprising men of New York State are capable of putting it through. I believe that the men before us to-night are capable of starting such an enterprise, and if you once started it and made it a success in one state, from there it would soon spread. I do not think the task is as great as has been accomplished by the co-operative societies, both in England and Scotland. The difficulties they overcame are far greater than selves to you in forming such a selling organization as would dispose of your crops of honey. I believe there is to be a move made in that direction in Ontario during the coming year. Our Honey Crop Committee of Ontario, while it is doing very good work in giving the bee-keepers a suggestion as to what price honey should sell at, yet I wish to say it is not covering the case entirely; it does not cover the case of a man whom Mr. Hershiser has mentioned. We have hundreds of men in Ontario, and away back in the Counties, who are producing from 300 to 10,000 pounds of honey. Those men are not reached by the Honey Crop Committee report, at least they are not affected by it, and they go into the towns nearest to them and sell their honey for whatever they can get for it. While the Honey Crop Committee has done good work among the large producers it has failed to reach the small producer, and it is the small producer that makes the standard of the price, and something should be done to get in the honey from those men that have it and can't sell it, and don't know how to sell it. By having some selling organization that would bring their honey to a common centre and sell it in a business like manner, I think you would accomplish just what you desire. The first thing to do is to get your State organization in a perfect condition, and then let your National be based upon the pedestal which your State organization would constitute; then your National would be a parliament, a legislative body set up by your State organizations. (Applause.)

The president called for the paper on "Selection in Breeding to Increase

the Honey Crop," by Mr. George B. Howe, Black River, N. Y.

Mr. Howe—What I am about to say has been repeated in the Bee-Keepers' Review, only a little differently. It is not what I shall say, but what I have done that you should look at.

### SELECTION IN BREEDING TO INCREASE THE HONEY CROP.

In trying to impart to you one of the most essential things in apiculture and yet the most neglected, for we have been told that it was impossible to improve the honey bee, I often wonder what reason anyone has for such an idea. We all know what has been said on the subject, and yet a few years in selecting and breeding not only contradicts, but proves beyond a doubt that it was all theory. Theory is all right, used as it should be, but facts are what we want. In my breeding I have been led by facts, not by color or any other hobby. I wish that my most beautiful bees would produce for me as much honey as the other less standard stock.

The old theory is that it matters very little what drone a queen mates with, if she has a good mother. I have the proof that it does make all the difference in the world, if you wish the very best queens. Just stop and think seriously about this. Does not every breeder of animals put as much dependence on the male in breeding? You will find that he does, and more.

It is a wonder that we have as good honey-gatherers as we have. And let me explain just why it is so. It is all in the law of the nature of bees, for the strongest drone is pretty sure to mate with the queen. You all know, or should know, that in years past our very best honey-getters were ruthlessly killed with sulphur fumes, because they made the most honey.

I find after years of records of the best queens that I could rear or buy, it was the colonies that were very dark, some showing only two yellow bands unless filled with honey. So I have found that colonies with bees too yellow, or too dark or black were not the largest producers.

There is a standard in color to go by, and it never has yet failed with me. In all fancy stock there is so

much to sacrifice for beauty. Now, then, it is an easy matter to select a good breeding queen. Rear a few queens from her; and if the average is high and even, she is a good breeder. Otherwise she should not be used.

### LONGEVITY IN BEES.

There is one way to prove this trait in your bees, and that is in the working season. It will surprise many to know that ten days, or even five, on a bee's life means many dollars in the bee-keeper's pocket. Don't think that if your bees winter perfectly that they have this trait. Test it in the working season. It is the only sure test. Be sure that every queen-mother has this trait. Also your drone-mothers.

### HEREDITY.

Here hangs our success or failure in selecting a breeding queen. Never use a queen just because she is a wonderful honey producer. Test her to know that she produces her desirable traits in her daughters. Not every queen is a breeder; very few, in fact, that are what they should be; but I find that in being led by facts, and not by any theory, I am gaining in getting more good queens. I put great stress on my breeding queens, whose bees show vitality to fly in the rain and when it is cool. Also they should have long wings. Some Italian bees carry as much as a third more honey than the black bees. Bear in mind these trivial things—as they will look to many bee-keepers,—for they are of vital importance, and should not be overlooked.

Remember, any bee will gather and store honey when there is an abundance of nectar in the flowers, but in selecting my breeders I prefer a poor season. Then we surely know that when they store a good surplus in such seasons she is worth the price.

Any one can easily tell when bees have the most desirable traits, with a little patience. Longevity you all know. Certain colonies will have as many bees in the hives as other colonies, that have a third more brood. Furthermore, those same colonies keep their numbers steadily increasing, while the other colonies come to a standstill. If you will take a frame

of brood from these best bees, and put it into a colony of black bees, keeping a careful record when the last bees hatch, and when the last bees disappear, of these bees that you are testing, you will surely know, if in the working season, that you are right.

Prolificness is all right, and all breeding queens should be prolific, but without the other traits to go with it, it counts for nothing, and I think we have been misled by some writers advocating it so strongly.

We must watch our bees to learn their range of flight. It will surprise some to know that some colonies in the same apiary fly less than half the distance that other colonies do. There are facts, and I will say that the trait of long range in our yellow bees is in this direction. I think we, as a whole, have been led too much by color alone, losing sight of traits that great honey-producers must have. I find that my best colonies winter perfectly, and unless they do, we should not use them as breeders in this northern country, at least.

This trait of longevity is separate from hardiness, and should not be confounded with it. And if bees do not show length of life in the working seasons over other colonies, we will not know they possess this most valuable trait. I bring this up to be sure that you understand it. No race of bees show the trait or characteristic of hardiness like the black or German bee, to my knowledge. But there are too many poor colonies of this race. So stick to the dark Italians, every time, if your bread and butter depends upon honey as a business.

The drone has been sadly neglected and unless we select our drone-mothers as persistently, and know that they possess all the desirable traits of our queen-mothers, we will never succeed in producing the very best honey-gatherers.

GEO. B. HOWE.

Black River, N. Y.

### PRICE OF EXTRACTED HONEY.

"How much should we get for extracted honey in a retail way?"

Mr. Garabrant—We have had honey in my section in the central part of

New Jersey retail up to 25 cents a bottle.

Mr. Yates (Conn.)—That is about what they sell for in Connecticut. We get 25 cents a pound, retail, for pound sections, too.

Mr. Horn—We get about the same price in Massachusetts.

Mr. Garabrant—I didn't speak of comb honey; that varies from 20 to 25 cents per section.

Mr. Coggshall—If a man buys a bottle of milk he will return the bottle; why do not bee-keepers follow the same practice?

Mr. Yates—The Board of Health in our section won't allow that.

### GETTING INCREASE AND HONEY.

"As a producer of extracted honey how can I best make increase and not affect my crop of honey?"

Mr. Hershiser—I would suggest you make the increase the year before.

### DARK HONEY FOR WINTER STORES.

"Are buckwheat, hearts-ease and Spanish-needle safe for winter stores, providing other conditions are favorable to successful wintering?"

Mr. Latham—For several years in Massachusetts my bees have wintered on that food. I have counted on it every year, filling up in the fall on Spanish-needle and golden-rod and aster, and I never had any trouble wintering.

The following Committee was appointed to take action on the matters suggested in the President's Address: O. L. Hershiser (New York); J. L. Byer (Canada); and James A. Stone (Illinois).

The convention then adjourned, to meet Wednesday, Oct. 13, 1910, at 9 o'clock a. m.

### SECOND DAY—FORENOON SESSION.

At 9:30 a. m., President York called the convention to order, and, after Mr. Selser had invoked the Divine Blessing, said: "I am sure we are all gratified at the spirit of harmony and good fellowship that has prevailed throughout the meeting thus far. So far as I know there has not been an unkind. I think we ought to be thankful for

that. I believe today we are going to have another good time, for I feel that we have all come here with that object. I believe that is the spirit that will govern to the end of this meeting.

At the request of the President, Mr. F. J. Root, of Newark, N. J., read his paper, entitled, "Advertising to Create a Larger Demand for Honey."

Before reading his paper Mr. Root said: "I had two papers prepared on this topic, and the other was really a very interesting affair, but, to my consternation, when I opened my satchel I found that it had been left at home, and when I get home there will be something doing, because my wife was to blame! I know, when I tell her, she will say she had nothing to do with packing my satchel, but every husband here will agree with me that the blame has to be placed exactly where it belongs—on the woman!! What I have to say now is largely along the same lines Mr. York spoke of last night, which also shows that "great minds run in the same channel."

#### ADVERTISING TO CREATE A LARGER DEMAND FOR HONEY.

On my way home one night, some years ago, I noticed in the window of a grocery store, a most tempting display. The window, a large one, was entirely filled with honey—comb and extracted. The packages were all clean and beautiful, the labels artistic, and of themselves attractive enough to cause the passer-by to stop. Around the sides of this window were illustrations mounted on cardboard showing apiaries in different parts of the world, the processes of collecting the honey, and in fact the A B C of bee-culture. Glass shelves supported the different glass packages, and on one of these was a large plate of golden-brown biscuits accompanied by a print of finest butter. The whole display was irresistible, and a genuine crowd had gathered. They not only looked, they acted. I resolved that I would have some of this nectar at home, as I could not recall seeing any on the table for months.

Imagine my delight on reaching home to find that my wife had apparently anticipated my wants. There was the honey, the biscuits, the but-

ter. I expressed my delight, and my better half said she, too, had seen the window and had utilized it. "I don't know why we haven't had honey oftener," she said, "but, somehow, I never think of it."

I mentioned the incident to some of my neighbors, and several of them I found had duplicated my own experience. Nor did the use of honey die out, and to this day its appearance may be noted on tables frequently where it seldom, perhaps never, had been seen before.

It seemed curious to me to hear adults say they had never before seen any honey in the comb. Speaking to the grocer about the matter he said that practically his entire trade in honey dated from this window, and his trade had increased at least six-fold and was still "on the mend."

In my office I have related this experience to a number of people, and have had a remark in reply, to the effect that, "while we all like honey, for some reason we very seldom have it on the table." May not the reason be that the housewife has not thought of it? She has not seen a "honey window." The retailer will say he has had no call for it, and his stock consists of a sickly-looking mass covered with the dust of last month, and the specks of the flies of last year, maybe. The jobber receives no orders from the retailer, so purchases none from the producer, and the producer—that's you—keeps pegging away, year after year, making some growth, but apparently giving no thought as to conditions, might be bettered. You must increase the demand. We seldom hear of a honey famine, and it seems to me that under present conditions the supply is always ample, and more.

Are you going to let matters drift forever? Are you willing to see the statement that "Karo is better than honey," placed where it may be seen by millions of readers—as it has been—and make no effort to contradict it? You are letting them steal your goods and you must not complain if your sales grow less, or at least if they do not increase as you hope for.

It is the purpose of this paper to urge a change upon your part, to outline briefly a campaign of publicity, which I believe in time will return at least three dollars for every one spent. It

can't be done over night, and the effort once begun should be persisted in indefinitely. To take it up a few months and then stop will be worse than nothing.

There ought to be used at least a quarter page space in such periodicals as the Ladies' Home Journal, Good Housekeeping, Woman's Home Companion, and other papers of similar nature, as well as papers like the Saturday Evening Post. A reliable advertising agency should secure the best possible position for an advertisement in these papers, and the sign should always be hung in the same place. This advertisement should be changed with every issue. It should be written by one who can write perfect English, and who can make every advertisement interesting and to the point. Part of the space might well be taken up with an illustration of honey in its different forms from hive to dining room—aye, to the very brown biscuit. The cuts should harmonize with the text, and be so well constructed that the reader will not recover from the shock without asking his (or her) grocer for a package of honey. The housewife will then have no occasion to say she didn't "think" of honey. It will be borne in upon her, month in and month out, just as she is never allowed to forget "Royal" baking powder. You will thus have gained one step toward the victory.

The demand caused by the advertising in the big magazines will be felt by the retailer, and you can utilize to advantage his trade papers, a connection with one of which for 27 years has made me somewhat familiar with these journals. Not all of the quarter of a million of "men who sell soap," as a retailer was lately defined, read their trade papers, I am sorry to say, but a lot of them do, and many of them take a deep and earnest interest therein. You should utilize the best of these, and as intelligently as the magazines are used; but of course the argument with the retailer falls into another line than that by which the consumer is approached. The leader may have very slight interest in the merits of honey as honey; but he needs to be told that you are carrying on a campaign that is bound to affect him

personally; that he will be acting with discretion if he will lay in a stock of honey to meet the call. Urge him to "study up" a little on the honey question. Tell him what argument he can use, and show him that by making a little extra "honey effort" he can increase the sale many fold. Suggest to him the method spoken of as to a window display—using honey alone, and not placing it by the side of sauer-kraut and limburger cheese and Bologna sausage. Honey is a royal article and needs better treatment in display than does salt mackerel, good as these may be. It should be separate from its friend, the enemy, Karo, and similar goods. In fact it deserves a place by itself—not that it will suffer by comparison with other goods, but the very nature of the article sets it among the choicest food products.

The grocer wants to sell good goods. At least I believe that most of them do. Then he likes to know that an article is well advertised and will sell all the year around; and, finally, he wants a remunerative profit. Given these points, and the retailer will wake up. He will see that the honey-counter is rescued from its "innocuous desuetude," and, I believe, he will keep everlastingly at it. A good retailer exerts a lot of influence among his customers, and can almost make or break any food product so far as his store is concerned, unless it is founded on a rock.

Permit me now to switch off a little from the main point, and to suggest that every package of honey be of a quality that will make good every assertion made in the advertisements. A California producer wrote me a few weeks ago that nine-tenths of the honey in market is not sufficiently ripened, and that it rather prejudices the consumer. Leave no stone unturned to make the article all that can be desired. The packages should be attractive and clean, and neatly labeled. I believe that there should be a distinctive word or illustration used in the advertisements and on every package of your honey, so that it will become impressed firmly within the mind of the consumer.

Of course your advertising campaign will help all producers, and

there will be those who will not contribute a penny to lubricate the advertising wheels; but this word or figure on your own brands will be the open sesame, and **you** will doubtless have more direct results than will the outsiders. Failing this trade-mark, the increase will fall upon the unjust as well as the just.

There are numerous details to be worked out, but you will not have to worry over them. Let the other fellow do this worrying. He is paid to do it, or at least to prevent worry on your part.

The larger your organization, and the more cheerfully and unanimously you work together, the less will be your individual burdens, and if you can get together 5,000 strong, you have a body that will exert a mighty influence in the direction indicated, that is, the increase in the consumption of honey. No one man can do much alone, though occasionally we find one like the man from Middlebury, who speaks right out in meeting, and I am constrained to read a few lines from a "talk" he has been making to grocers in a trade paper down east:

Ordinarily when a grocer orders goods from the jobber he is very particular to specify exactly what brands he wishes.

He does not leave it to the wholesaler to send whatever he happens to want to get rid of. In fact, the progressive grocer recognizes that on his judgment in selecting brands his profits in a great measure depend.

But many times that same grocer will order honey without saying anything about the kind, and one lot that he gets may be native honey, and the next come from California. Sometimes the quality may be good, sometimes it may be indifferent.

Is it any wonder if that man does not have a big honey trade?

And now to move up a peg, the question arises:

Can money enough be raised to pay for this campaign? Let us see. I am informed by A. L. Boyden that the production of honey in this country is 60,000,000 pounds per year. Of this amount he thinks nine-tenths is produced by 10,000 bee-keepers—54,000,000 pounds. There are not 10,000 members of the National Association, though there ought to be, but can we count on 5,000 members with a production of 27,000,000 pounds, or even 20,000,000 pounds? Now if you tax yourselves say one-eighth of one cent per pound, and produce 2,000,000

pounds, \$25,000, you have a good start; but one-fourth of a cent and \$50,000 will be twice as much and a half-cent will be a good wad. These seem rather liberal sums, but Post spends a million or even more every year. And \$50,000 divided among 5,000 is \$10 per capita **spread over a whole year**. It means that the producer of ten tons will pay \$50.00, the producer of half a ton, \$2.50. If only 2,500 contribute, of course the burden per capita is greater. This matter of raising money is however not strictly a part of this paper, and I must apologize for switching off.

What may we hope will be the upshot of this advertising? If it will increase the consumption of honey one ounce per capita of the people of this country per year, it will mean over 16,000,000 pounds. Think of it. One ounce spread over 52 weeks—an amount per week you can put on the point of a blade of a table-knife.

Is it unreasonable to suppose this increase can be secured? If Mr. Boyden's estimate of 60,000,000 pounds is correct, you will add thereto more than 25 per cent. And the honey of **quality**, the goods with the National Bee-Keepers' Label, is the sort that will win.

**When** will you be ready to do more than talk? This is not a sudden proposition. I have written to honey people for years about it. They have invariably been ready, individually, to help; but of course the individual can't do much alone. Get together. Put the wheels in motion, and don't turn back. Contribute cheerfully, and make suggestions as to the campaign. Wide advertising has helped other industries, and it will help **honey**. The way to begin is to **commence**. **Do it now.**

F. J. ROOT.

Newark, N. J.

In my other paper I sought to show that three cents a day contributed by 5,000 members to your association would produce a fund of over \$50,000.

Advertisements ought to be written by somebody who knows something about honey, who can tell a honey-bee from a hornet, and who knows the glucose is not exactly the same stuff as honey.

A nice illustration of honey, such as J. E. Crane used on his letter-



heads, is enough to make one's mouth water for it.

There ought to be some sort of seal on every package sent out by the National, and I don't know but what this ought to be copyrighted.

Pres. York—I am sure Mr. Root has a great deal in his paper that is worthy of our best attention. He is not at all financially interested, I believe, in bees or honey in any way, but he has had long years of experience in advertising along the grocery line. Mr. Root's paper is before you, and I hope it may be thoroughly discussed, or, at least, that you will have something to say on it, to show your appreciation of Mr. Root's efforts.

Mr. Cyrenius—I think this is a matter of very much importance and that the bee-keepers themselves are largely to blame for the depression in prices that confronts us at the present time. We have been indiscreet in extracting honey, and have put a great deal of unripe honey on the market, which has rather given us a black eye when we come to sell good honey. I think we have learned better, but the question which comes up now is to sell the product we have. I want to call your attention to two or three experiences I have had along this line. A few years ago one of the neighbors wanted to know if I couldn't come and take his honey off for him. Being a good friend of mine, I consented, and took the morning train one day, with my extractor, and went out to his yard, and during the day, I think, I extracted some 1,200 pounds, took off about 600 pounds of comb honey, and filled up his milk cans, and boilers, and all available household utensils, and when I got all through he said, "What will I do with this honey? Can you tell me how I can get rid of it?" I said, "Yes, I can." I told him to get a few tin pails that would hold about five pounds, and a few Mason jars for the white honey, and have in his wagon a convenient pair of scales, and also receptacles in which he could draw it very easily. I said, "You have several men and horses and wagons around here, and the farmers like honey as well as the city people. Just have the man go around the block and call at every house, and see what he sells." Now, as a result, that man sent to me only a few days after

that and wanted me to furnish him some honey to fill out his orders that he couldn't supply. I am talking of what you can do in your home market. I think you bee-keepers would be wonderfully surprised if you knew the amount of honey you could sell right in your own vicinity.

Another instance, in the year 1893 during the World's Fair, I made a very large exhibit at the State Fair in Syracuse. First of all I had very large pieces of comb curios. I had one box five feet long built out in designs, and I had another one where there were four combs built four inches thick and 40 inches long, and just as square and true and straight as a piece of wood, and a number of other pieces. At the close of the Fair I sent to Mr. Hershiser some of those specimens to be exhibited at the World's Fair in Chicago. The balance of my exhibit I brought to Oswego, and I went to one of our grocers there and said: "Look here, I have some honey I want you to sell." "All right," he said. I said, "I want to make an exhibit here; I want to show you something you don't very often see in Oswego." And one evening I pulled the shade down, and made up that display in the window, and piled it away up with beautiful honey, and large designs; among other things I had two or three observation hives of bees. As a result, it was only a few days before he gave me \$50 for what honey he had sold. That shows what it will do if you have it in attractive form.

The past summer a farmer started up a little bit of a grocery in a community where you wouldn't think a thing of that kind could exist at all. I said, "Look here, I want you to sell some honey." He said, "I don't know that I will have any calls." I said, "That doesn't matter; all I want you to do is to hand the goods out." I made a little exhibit, and he has been surprised by the amount of honey those farmers have come around and taken. We were asleep on this thing; let us get up out of our Rip Van Winkle nap. There is a great field for us to work along this line. We can sell our crop; there is no trouble about that.

Pres. York—You can't sell everything in the home market, and this

paper is more for the large bee-keeper.

Mr. Stone—The first President of the Illinois Bee-Keepers' Association lived at Irish Grove, Illinois, and he sold all his honey among the farmers; he put it in gallon buckets and charged them a dollar a bucket. He raised a pretty large crop; he had nearly 100 colonies of bees.

L. C. Root—This matter of selling honey in large quantities is one of extreme importance. You remember a few years ago we thought that all the section honey we sold must be glassed, and when we began to sell honey there was no glass, you remember, but the result of it was particularly when the California honey began to come in, and it was produced without separators; that one comb would run into the section adjoining it, and it almost ruined our trade in section honey. I remember going into the different groceries here in Albany and in the smaller towns in the Mohawk Valley, and I would find they had a pan made just large enough to receive the case that the honey came in from California. When they broke that apart, it was set in there so that it would catch the drippings, and the dealers said they couldn't handle it; they absolutely refused; and up to this time the dealers in our city offer the very choicest honey, and the people will come in to examine it—and honey must show itself and advertise itself—and people will come in and invariably take hold of it the flat way, and you will find finger prints in it wherever they can get at it. Since we are selling honey by the section rather than by the pound it seems almost impossible to sell the honey that was glassed, but it is one of the large questions. The best dealers say they must have it so that the honey can be seen; and the first thing every good judge of honey does, is to hold it up to the light to see whether it is clear. I haven't had as much practical experience in this later day handling of it, only in the small markets, and I see the effect of handling it and breaking it. Only last year I lost one of the good market men because, in delivering it, it had tipped over in the delivery wagon. We have with us Mr. Ellwood, who has had experience right along this line of glassing, and I was little surprised

to have him tell us they still glass their honey in selling it.

### GLASSED COMB HONEY AND PRICES.

Mr. Ellwood—About twenty years ago, at the time glassed honey came into the market, the dealers in New York told us we should keep on glassing our honey, and they utterly refused to handle any honey that was not glassed. They are handling our honey yet. I firmly believe if all of us had kept on glassing our honey that the market for honey would be double. I was very glad to hear Mr. Root. You can't make a very fine display in windows unless the honey is glassed, and I am very sure this helps the trade more than any other one thing. I recall an incident several years ago, I was in a neighboring village, and a man there was running a large retail store, and he asked me if I didn't have some honey for him. I told him I had, but it was late buckwheat honey. It was 18 miles from home, and I thought the best way to get there was to hitch up a team and drive over. I did so. It was in the month of November, the day before it froze up. I put on a light wagon what I could conveniently carry in five pound pails. These pails were neatly labelled, and the word "Honey" very prominently on them so that anyone could read the word across the room. When I got there he says, "I can't handle that honey, I don't want any such quality of honey as that; I can take two or three dozen, that is all my trade will call for. I don't have much call for honey." That is what they all say. If the goods don't display themselves they don't have much call. I told him I couldn't take that honey back. We finally compromised; I left the honey there. I piled it up in a neat little form, and I agreed at the end of two weeks to come and take the honey away which was not sold. At the end of two weeks I was surprised to receive a letter saying he would very much like to have me bring out some more honey.

The people would say, "What a pile of honey that is; there must be something in that, or he wouldn't be handling it in such quantities." Everybody wanted a pail. I was very glad to hear Mr. Root's paper, it was one on the right lines. We can all of us do

very much by advertising our own goods.

Mr. Davis—It is rather a surprise to me to hear a note of surprise in the enquiries relative to glassing honey. I would like to say that from one County in this State this year was shipped between 100 and 125 thousand pounds of comb honey in glass, and it is the only way they do ship, and they have a national reputation as beemen. They have a market that takes all the honey the individual producers can supply, as high as 35,000 pounds, and they keep above the market price, for it is a good class of honey. Why should they change? I think they are very reasonable in the stand they take. They have made a lot of money glassing their honey, and they are going to continue. On the other hand, the consumer that buys that package gets a very small article of food compared to the 16 ounces of extracted honey. You can dispose of more extracted honey in the comb section, with or without glass, and get just as good a price for the extracted honey as for the comb if you convince the people they need it badly enough to pay you the same price for it. The trend of the discussion on this paper it seems to me has got away from the very broad advertising campaign to simply disposing of what you can produce in a small way at home immediately. Now, the subject of this paper is a large educational advertising campaign that will create a demand for honey in the large consuming localities such as our metropolitan district of New York City, and make honey a necessity, and create a firm demand for it, the same as butter or other commodities for table use. That is the only basis on which we can expect a marked raise in the price of our goods, to have a demand for it from the standpoint of the consumer that it is something they must have, and not something they can get along very easily without.

Pres. York—Mr. Davis is right; it is along the wide advertising line. What can this Association do along that line? Has anyone a suggestion? Do you want to make any recommendation?

Mr. Garabrant—I would suggest a label, insignificant as far as cost is concerned, that every member of the Association should use on first-class

honey. If every member of the Association would guarantee not to use it on anything but first-class honey it should be gotten out by the Association so that it would be uniform. The Unions have their union label on nearly everything; why shouldn't we work on the same principle?

Mr. Davenport—As the result of the reading of Mr. Root's valuable paper we have had considerable discussion, and a number of reports that are very confirmatory of the great importance of advertising for the disposition of the honey crop, therefore I move that Mr. Root's paper be referred to the committee of three appointed last evening.

(The motion was duly seconded).

Mr. Root—Some prefer the idea of a direct contribution instead of an assessment of so much per pound. As I stated at first, if you can get 5,000 members who would contribute three cents a day you are going to raise a fund of about \$54,000 a year, and by contributing this amount per day there will not be any question as to true amount of honey they produce. On the other hand, there may be some objection to that. The trouble may be to get the five thousand members; but it seems as if there ought to be 2500 men in this country who would agree to contribute six cents a day, which will amount to the same thing. Of the two methods, assessment per pound or so much per day, that is in your own discretion.

Mr. Stone—As a member of that committee I will say that there are steps being taken to put the affiliated membership of the National at one dollar instead of 50 cents; then this would have to be added, and it will make it pretty burdensome. It is like compulsory education, it is putting upon people something that they won't willingly take. I don't believe we can set a figure and ask people to come to it. There might be some volunteers that would willingly give that. I don't believe that had better be referred to the committee with the idea of taking up anything like that.

Mr. Root—I can't believe that a tax of \$20.00 a year, say a dollar and a half a month, is going to be found burdensome to the great majority of this intelligent Association, I mean, make the dues one dollar, and then add

another dollar for this advertising campaign. It seems to me it ought to be worth \$5 a year to every bee-keeper to belong to the Association.

Mr. Snyder—I think without a very large campaign it would have very little effect. A campaign was made amongst the bee-keepers in our State to join our Association, and in response to 5,000 letters which were sent out, to the best of my knowledge we received seven applications. That is not a very large return, and they were all bee-keepers, too. If a bee-keeper can't see the value of the Association, it will, I think, take an awful lot of capital in advertising to make any impression on the public. There was something said about the Corn Products Company. There are millions of dollars spent by that organization for advertising, and naturally we can't sell honey as cheaply as they can sell corn products. Seventy-five per cent of the people use those corn products; and when we speak of the corn products and the advertising they do, and what we should do, there is no comparison at all.

Mr. Davenport—The object of referring this matter to the committee, and in making the motion, was not to instruct the committee that they should adopt all the features suggested by Mr. Root, but rather that they should consider those points and see if they could not combine them with their own propositions, and formulate a plan for the re-arrangement or amendment of the constitution that would cover the ground we want to cover for the disposition of the honey crop. It seems to me it is a very proper thing that they should meet together and take into consideration the points presented in Mr. Root's paper.

Pres. York—It seems to me that all such matters as look to the advancement of the Association should be referred to this committee, because they are going to act on the various propositions and put them up to the Board of Directors, who have control of the funds. They have absolute control of the funds; nothing can be spent without the consent of the Board of Directors.

The President put the motion, that Mr. Root's paper be referred to the

committee of three for consideration, which, on a vote having been taken, was declared carried.

Pres. York—There was one paper passed over for the reason that it was not here. It has come this morning. It is "Co-operation Among Bee-Keepers—Advantages and Procedure," by Frank Rauchfuss, of Denver, Colorado. I will ask Mr. France to read the paper.

Mr. France read the paper as follows:

### IS CO-OPERATION NEEDED AMONG BEE-KEEPERS.

To answer this question we will take a copy of the American Bee Journal of Oct. 2, 1887, wherein we find the following market quotations on comb honey:

R. A. Burnett, Chicago, white comb 1-lb sections, 18 to 20c; McCaul & Hildreth Bros., New York, fancy white 17 to 19c; Clemmons, Cloon & Co., Kansas City, choice white 1-lb, 20c; C. F. Muth & Son, Cincinnati, say, "We think choice white comb would bring 18 to 20 cents in a jobbing way."

Now what do we find in the same "old reliable" American Bee Journal in the way of market reports, 23 years later, by the same firms or their successors?

R. A. Burnett & Co., Chicago, fancy comb, 17c; Hildreth & Segelken, New York, fancy white 15 to 16c; C. Clemmons, Kansas City, No. 1 white, \$3.50 per case, (which is equivalent to 16½ per pound); Fred W. Muth Co., Cincinnati, fancy comb 16 to 16½ cents.

Now does not this comparison speak volumes?

The year 1887 was a year of light crop, but it cannot be contradicted that the honey crop of the United States for 1910 was also a poor one.

Now let us take up a few of the most important articles of bee-supplies used:

(Prices from American Bee Journal of Oct. 12, 1887):	each
One Story 10-Frame Bee-Hives,	
K. D. ....	\$ .90
Brood-Frames, per 1000.....	12.00
4¼ One-Piece Sections, per 1000..	4.00
Shipping-Cases, without glass, 50.	6.00
Thin Surplus Foundation, 100	
pounds .....	47.00

(Present prices for the same articles, from Root's 1910 catalog:)

One Story 10-Frame Bee-Hive,	
K. D. ....	\$ 1.50
Brood-Frames, per 1000.....	19.00
4 ¼ One-Piece Sections, per 1000.	5.50
Shipping-Cases, without glass, 50.	9.00
Thin Surplus Foundation, 100	
pounds .....	53.00

This shows that the bee-keepers now get nearly 20 per cent less for their honey than they did 23 years ago, while the requirements of the trade are much more exacting than they were then; and that the bee-supplies used now cost 25 per cent more. In the 23 years, the population of the country has nearly doubled and the necessities of life, food, clothing, etc., have greatly advanced; in fact the purchasing power of a dollar is reduced to nearly one-half.

In the business world we find many changes. Most of the important articles are now under the control of gigantic trusts, which dictate prices. All lines of business are organized, even the retail grocers—but not the tiller of the soil and the bee-keeper. Although in some sections of the country a start has been made in an encouraging manner, much needs to be done yet.

Co-operation among bee-keepers in this country has, if I am correctly informed, been only attempted in the West. Unfortunately, the first attempts were not successful, which delayed the movement, but now several organizations seem to be in successful operation.

In the writer's opinion the best field for co-operation is where many large apiaries are in close proximity to each other, and where the market for their product has to be found in distant territory, to be shipped there in carload lots. In such a locality it should not be very difficult to get together a number of progressive bee-keepers to form a local organization, draw up a constitution and by-laws, and subscribe sufficient capital to make a modest start; adopt suitable grading rules, uniform shipping-cases, and select a competent person as a manager, one in whom all have confidence, and who is willing to devote the necessary time for the proper performance of his duties—of course for a reasonable compensation. The members should resolve right at the start to stand together, even if outside parties try to break up the organization by temporarily offering attractive prices.

They should resolve to build up a reputation on the quality of their output by grading and packing their comb honey in such a uniform and neat manner that it will be a pleasure to their manager to pass on their grading.

Such matters as warehouses for storage of honey, the supplying of honey in small lots to near-by trade, and the furnishing of bee-supplies to members, would better be worked out after a success has been made with the carload shipping.

An effort should be made to work harmoniously with other co-operative associations.

One thing must not be lost sight of, namely, the only co-operative associations of producers that have attained success are those that put out uniform packages of strictly graded goods of high quality; that keep closely informed about crop conditions of their community, and carefully watch the movement of the same at the various centers of distribution, thereby securing right prices for the crops of their members.

Organization in an exclusive extracted-honey locality, is a comparatively simple proposition, as the grading and packing requirements are easily complied with; also the hauling, storage and loading in cars are simple matters.

That co-operative marketing of honey is profitable even in densely populated localities, where there is a near-by market for all that is produced, has been demonstrated in Europe.

The aims of the management of every co-operative association should be to build up a reputation for the quality of their goods, secure a good price for them, treat all members (large or small) in a strictly impartial manner, and distribute the profits, after first setting aside a reasonable dividend on the shares of stock sold on the basis of the amount of honey disposed of through the association.

It is the writer's opinion that the Board of Directors should be elected by the direct vote of all the members, without previous nomination. Thereby a true expression of the members is secured as to whom they want for their directors. That this can be done in a satisfactory manner is demon-

strated by the Colorado Honey-Producers' Association, whose membership is scattered over a large territory.

Members should not be compelled to sell their honey through the association, nor to buy their supplies through it, for if a co-operative association cannot demonstrate that it can do better in the majority of cases than a single individual, then it needs fixing.

A good, live co-operative association is not only a blessing to those belonging to it, but also a benefit to everyone connected with that industry within a wide radius.

The bee-keepers of Colorado and other Western States would be glad if our brethren in the Middle and Eastern States would organize, as we feel that it would be to our mutual benefit.

FRANK RAUCHFUSS,  
Manager Colorado Honey-Producers'  
Association.  
Denver, Colo.

Pres. York—It seems to me that co-operation and advancement is in nearly every paper now. Mr Rauchfuss is manager of the Colorado Honey-Producers' Association. They have been organized for a number of years along co-operative lines, not only for the selling of the honey crop, but for buying bee-supplies. What will you do with this paper?

### PRICES COMPARED TO 23 YEARS AGO.

Mr. Selser—I want to say to the bee-keepers that that paper is rather misleading, and some of the statements in it are hardly correct, although I do not accuse our good friend of not trying to state it as he understood it.

In the first place, in regard to the prices of supplies and honey, he makes a comparison between the quotations of the market today, and 23 years ago. I don't recall what was in the bee-papers as to quotations 23 years ago, but I do know something which to me is much better than that. I know actually what honey brought 23 years ago, and something about what it is bringing to-day. In substantiation of that statement I want to say that probably some of you here know that it is not so many years ago when buckwheat honey in kegs was offered in this State at 37-8 cents a pound. I was up in this State some

20 years ago and bought a carload of buckwheat honey at that price. Today that very same honey is sold right in this State, within the last thirty days, at seven cents a pound. That doesn't look very much like a decline in prices. I also went to Wisconsin and Michigan twenty odd years ago, and I contracted there in car lots for white clover honey in barrels at 5 1-2 cents f. o. b., and the individual bee-keepers through Wisconsin were only getting 5, 4 1-2 and 4 3-4 cents, and they were very glad to have me contract with them. This year that very same honey in barrels has sold at those same points for 8 and 8 1-2 cents a pound. That doesn't look very much like a decline. Sitting over there at the side is a gentleman I have been dealing with for many years for fancy white clover honey in the comb, and he can remember not so very many years ago when you could get, right up in St. Lawrence County, that honey for about 13 or 13 and a fraction cents. New York people bought it in carlots some fifteen or twenty years ago. This year that same honey is sold for 16 and 16 1-2 cents in car lots. Gentlemen, you are very much mistaken when you make the statement that bee-supplies have gone up and honey gone down. That is positively incorrect. I think we have never seen a time in a quarter of a century that honey brought as good prices as it is bringing today. As to the price of honey, retail, it is one of the peculiar things that a grocer fixes the retail price of comb honey at 25 cents, and he can get 25 cents for the flat pound of comb honey from the average shopper that comes in his store. If he pays by the case to the dealer, 16 cents, he sells for 25 cents; if he pays 18 cents he sells for 25 cents; if he pays 20 cents, he sells for 25 cents, but it raises the question that the retail grocer buying a case or two of comb honey can hardly afford to sell it on five cents a pound margin, so that when honey goes up, there is going to be a great deal less of it used, simply because the grocer thinks he can't sell honey on such a low margin. The average retail grocer won't sell more than three or four cases at the outside, and when the season closes, he will have half a case to carry over, and he has got to



count on a loss. I would like to have it go out from this convention to the world at large, if nothing else, that we as bee-keepers are getting more money for our honey this year than we ever got in the history of the honey business.

Mr. Snyder—Are there any bee-keepers here who remember what prices they got for honey, twenty years ago? (Quite a number raised their hands in response.)

Mr. Huffman (Wis.)—I can't just agree with the last speaker. I will have to agree with the paper written. I know what honey was worth 20 and 25 years ago. We got from fifteen to eighteen cents a pound for comb honey. I live in Wisconsin, and I want him to remember it was eight or ten years ago that honey went down. Take the data and compare it with the paper, and see if the gentleman who wrote the paper is not correct. Mr. Selser is getting in between. I sold honey about six or eight or ten years later for five cents a pound, but not 23 years ago.

Mr. Hershiser—What was the price of honey in Wisconsin that you just quoted, Mr. Selser?

Mr. Selser—I said they were getting 4 1-2 and 5 cents for white clover extracted honey by the barrel. I didn't say exactly 23 years ago. If I did say that, I will stand corrected. I said about ten to fifteen or twenty years ago. At the present time it is selling at eight and eight and a fraction cents in barrels in Wisconsin, if you can get any, strictly white and alike.

Mr. Hershiser—How is it they sell it at that price there, and out in Cincinnati and other cities, after paying freight and commission, they don't sell it any higher? They say strictly fancy white honey, and if there is anything better than that, I don't know it.

Mr. Selser—I don't know that they are; not Wisconsin honey. Wisconsin and Michigan produce the finest white honey we have.

Mr. Weber—I would like to contradict Mr. Hershiser on that. He will find our quotation today is 9½ cents on white clover honey, and if he has any to offer I will pay him 8 cents f. o. b.

Mr. Hershiser—I am looking for a little higher offer. I don't consider that a snap, by any means!

Mr. Davenport—It seems to me that the quotations offered by Mr. Selser hardly have application to this discussion with regard to Mr. Rauchfuss' paper. You all know that extracted honey years ago was a drug in the market. I am aware of one party that had 35 tons of extracted honey, and sold it for a trifle over 5 cents a pound, and it went to the Chicago market, and today that man doesn't get so very much more than he did then. Then there was a good deal less demand for extracted honey. The use of it was almost unknown. We know it is entering into manufactures a great deal more largely, and the demand is much more extensive; the National Biscuit Company alone have a standing advertisement calling for all the honey that the bee-keepers want to sell. They use it extensively, and all these different agencies that make use of extracted honey have increased the value of it during the last decade or two. You will notice Mr. Selser doesn't make the comparison of the quotations on comb honey as extensively, and his quotation on comb honey refers to buying in St. Lawrence County, distant from the market, and he, at that time, got it at a lower figure, and today it brings a somewhat larger figure. It is not a just comparison in support of his idea. But, the paper by Mr. Rauchfuss has no application to this proposition, and I would be glad if someone would make the motion that this paper be referred to the committee of three in order that they might take it into consideration in connection with the plan of co-operation among the bee-keepers, for the sale of the product of the bee-keepers, and for the formulation of a plan for amendment to the constitution to cover these various grounds. It is not that they shall incorporate ideas, but that they shall consider them in connection with any plans they have already formulated, and see if they can amend those plans.

Mr. Hershiser—I came in a little late, and I didn't hear fully the discussion. I would like to ask about when it was Mr. Selser bought buckwheat and other honey so cheap in New York State.

Mr. Selser—I said I couldn't tell exactly; I should say, in round figures, about fifteen years ago, maybe it is

longer than that; but I would like to say, while on my feet, I was replying to this paper in fact; as I understand, and as the association understands, he was sort of bemoaning the fact that bee-keepers are getting so much less for honey today than 23 years ago. I say that statement, perhaps unintentionally, was misleading, and not according to the facts. We have a gentleman here from New York, and I wish he would be called on. I would like to have Mr. Segelken say how prices compare today with those of twenty years ago.

Mr. Hershiser—I want to make the broad statement that at the time Mr. Selser refers to, along about 1894 or 1895, we were getting higher prices for honey than we are today. I refer to what you could buy with what you had to sell. In those days we got, according to what he says,  $3\frac{1}{2}$  cents to  $3\frac{5}{8}$  cents a pound for buckwheat honey. Do you off-hand remember what you could get for a horse then? If you had a good horse, worth about \$200 today, you would get about \$40 then. Do you know what you got for wheat then? It happened to be my misfortune to be at home helping my father out of financial difficulty. I know he had about 1,200 bushels of wheat in his grainary, and we hauled it away and got 43 cents a bushel for it! How much wheat could you buy with honey at  $3\frac{5}{8}$  cents a pound, compared with what you can buy at the present time? You get today twice as much for wheat and pork, and three times as much for a horse, and everything else in proportion. What I want is to be able to buy as much with my money today as I could then. I want just as much living now as I could get out of it then. We can't get that much today until we get together in some way or other, formulate some idea to bring the purchaser and producer together in some form, where they can discuss things and get what their product is worth. We have to think of these things, and get together in some way or other. (Applause.) I tell you, brother bee-keepers, it is a burning question whether you get a proper compensation for the work you are doing. We go into the bee-yard and stand the smoke, and endure the heat, and everything of that kind, to produce a crop of honey, and then we should

not be so foolish as to fool it away. I don't ask that we get too much for it. I recognize the fact that Mr. Crane brought out, that if we ask too much for our honey we cut off the consumption. We just want a fair price. We don't want so much as Mr. Crane, even when he sold his honey at such a price that the jobber couldn't sell it, and make a loss on it. When I take issue with the gentleman that we are getting as much or more for our honey in those days than now, I want you to remember it is the purchasing power of what you got for it that we have to consider, and not the money. Money we can't eat or wear; but it has a purchasing power.

Mr. Segelken (N. Y.)—As far as the subject under discussion goes, I will say that I endorse every word that Mr. Selser has said, from A to Z, because I know what he has talked about. We are in exactly the same position. Mr. Hershiser might be right in some respects. There may be conditions in some markets and some localities where they got better prices, but that is not the rule all over the country. As I understood, Mr. Selser referred as a whole, not selecting any section or locality. I can only endorse what he has said as far as the prices are concerned. The higher they go, the better we like it ourselves, but we can't force them up. If you bring the price of extracted honey too high, the manufacturer will not use as much as if he could buy it at a reasonable figure. You take the confectioners, who use probably the most of the extracted honey, and ask them, and see how much more honey they will use if they can buy extracted at five cents; or if they have to pay eight or nine cents they will cut out the larger part of it. Comb honey is just about the same as Mr. Selser says. For fancy white honey, I doubt very much whether you could find fifty stores in the United States, where they could get more than 25 cents a comb. If it could be driven to 30 cents we would like to see it, but how to do it is the question.

Mr. Huffman—I endorse, as I said before, what Mr. Hershiser has said. I want to ask him this question with regard to the production of those days and today. The last man on the

floor endorsed all Mr. Selser said. I say, I don't, because I live in Wisconsin, and I know what honey brought at the date that the paper says, and I know what bee-keepers got, and later they got from five to six cents. You must take into consideration the locality, and all those the purchasing power of a pound of things. Prices went down. Take honey today, and then where are you?

Mr. Hershiser—Oh, I think the production now as compared with then is 50 or 100 per cent more. I want to say to Mr. Segelken it is not my purpose to talk the rise in the price of honey to the point where it is going to shut off consumption, and I want to congratulate Mr. Segelken upon the fact that he has in a great measure enabled California bee-keepers to get a higher price. I remember when the white sage honey was bringing to those bee-keepers only 3 1-2 to 4 and 5 cents a pound, but now I know they must be getting a good deal more than that, because now he asks nine cents a pound.

Mr. Weber—I think if all was considered and weighed, and one crop after another taken into consideration, that honey today is in better demand and in better shape than it has previously been in my time. I can't recall twenty years ago, for I am not that long in the business, but within the last seven or eight years I can, and I wish to say here that I think if the crops were compared, which we can't do very well, because one year the crop is bad in one portion and good in another, and in another year you will find it just the opposite, but I think if we compare crops today in general we will find honey has advanced about fifteen to twenty per cent.

Mr. Hershiser—I think that is true, and I think the other things we have got to use along side of it in our living,—flour and meat and one thing and another,—have advanced about 50 per cent.

Mr. Latham—I am not an old man, but I was selling honey 25 years ago, and I could sell honey at 25 cents a box as easily as I can get 20 cents today, and the honey I produce today is better than the honey I produced 25 years ago.

Mr. Davis—I think the solution of the difference in the price between what the consumer pays and what the producer gets is not the fault of the large honey-jobber or buyer, but the fault lies in the fact that the public do not demand honey, and it is not a staple in the grocery store. In the north country, in St. Lawrence County, the largest dairying County in the United States, barring one, the farmer receives in the form of a check on his bank about 29 1-4 cents a pound for butter, after all the expense of manufacturing has been taken out, and the butter retails over the counter in New York, and in Ogdensburg, for 32 to 33 cents a pound, making a small margin of difference between the price the producer gets and the price the consumer pays for it. Why? Simply because the dealer knows he can make a small margin on that and make a quick return. He doesn't have that butter tied up in his ice-box for six months or a year, and part of it left over till next year; it is sold almost before he pays for it. Now, before the producer can expect a larger return for his honey, some campaign of education has to be made to make honey a staple, not a luxury, and until the market is in that condition, I don't see, in justice to the dealer or in justice to the jobber, how honey, retailing at 25 cents a pound, can be realized more for by the producer than sixteen or seventeen cents.

Mr. Van Anken—I worked for our Vice-President about 31 years ago, and he put up his comb honey in two-pound sections, glass both sides; he sold several tons of that honey in New York at 20 cents a pound, 31 years ago. That will show you the difference between prices now and then.

The President put the motion to refer the paper to the committee of three, which, on a vote having been taken, was declared carried.

Pres. York—We will call now for the report of the committee appointed last evening, on the President's Address, of which Mr. Hershiser is chairman.

#### REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

Mr. Hershiser—As chairman of the committee on the President's ad-

dress of last evening, I beg to report verbally that the committee met, and after some deliberation concluded that the matter was so momentous, had so much involved, and required so much thought and deliberation, that it would be unwise to proceed with anything very definite at the present time. We can't very well get together and in a few moments formulate anything that is going to be at all accurate and far-reaching, and so we concluded to do this, to recommend the appointment of the secretary and general manager of the association—have this committee enlarged by the appointment of that many new members, ex officio—and make it a standing committee, and that they be given time to deliberate and see what is best to be done. We desire to do something effectual, and something that will benefit all bee-keepers, and for that purpose we make this recommendation.

It was moved and duly seconded, that the report of the committee be approved of.

Mr. Davenport—When will the committee report, and to whom?

Pres. York—They will have to make all their recommendations to the Board of Directors.

Mr. Davenport—Will any action be taken before the next annual meeting?

Mr. Hershiser—I don't think anything can be done that would be of any permanent value before the next annual meeting. If there is anything to be done in the way of amending the constitution, that can't be done immediately. According to the constitution it takes some 40 or 45 days' notice previous to the annual election to get an amendment passed, and, that being the case, we can't do anything that is very permanent inside of that time; and that is why we concluded that more time and deliberation would be of benefit.

Dr. E. F. Phillips, on being called upon by the President, said—I haven't any desire at all to discuss this subject, but it is to me personally a matter of very great regret that the committee has taken the action it has. We all listened with great pleasure to the address of the President, and on account of his remarks we realized something radical must be done, and at once. Those members who are not

present, and who do not have the opportunity of hearing the President's address, and will merely read it (it is not the same to read an address as it is to hear it) will not be enthused in this matter as we are. The result will be, when it comes up to the ballot, they will not know what to do. Whereas, if those of us who are here present could formulate some plan, which seems to us to be the best that could be submitted as the sense of this convention, it would go through beyond all doubt. But, if that is going to be left to the Board of Directors, and to a committee, it will not be as effectual as it will be if it is passed on by this convention. It seems to me it would have been a great thing if we could have formulated some definite line of action, and presented it this morning for discussion, and have the thing put up in definite shape.

The Board of Directors have been running the National now for a good many years, and, with all due respect to them, we know how they have been running it; and if it is left to them to change we can only assume they will make changes in accordance with past plans, and those of us in the convention got the idea something else was necessary after listening to Mr. York's stirring address. For that reason I would like to have something done right here and now.

Pres. York—The committee can have another meeting before the convention closes, and bring in a further report.

Mr. Stone—As a member of that committee, I understand it is to talk over and suggest the changes to be made, then they will come before this meeting at its next annual session. Notice has to be given 45 days before the next annual election, and I think Dr. Phillips' point is well taken; but won't it come before the convention before any action is taken? It will be the action of the convention, and not of the Directors.

Mr. Davenport—As the mover of that motion, it was contemplated that whatever plan was formulated by the committee would be submitted to the annual convention of the National Bee-Keepers' Association. In view of the suggestion that has been made, I move an amendment to the motion to approve of the report, that the Presi-

dent and Secretary, and General Manager be added to the committee, ex-officio, and that they be a standing committee to report at the next annual meeting.

Mr. Davis—I think we are putting the object of this movement off one year without accomplishing anything in the meantime. How much further along will we be a year from now? My idea is to start something now, if it is nothing more than making a report to the separate State and County bodies for their consideration during their own local deliberations, and let them thresh over the proposition as brought forward by this committee. The State conventions have not held their meetings yet, and this subject can be brought before them for discussion, and those members will have had sufficient knowledge to discuss it, whereas now, we, each of us, have a small idea individually as to what co-operation will mean to the larger bodies. We haven't got any proposition here in any tangible form to discuss, and if we defer action until a year from now, how much better off will we be?

Mr. Hershiser—I think it would be well for us to call another meeting of this committee, and invite these gentlemen that think they have some way of bringing this matter about immediately to come in and tell us how to do it.

The President read from the constitution, showing that no amendment to the constitution could be made this year; also with reference to the powers of the Board of Directors.

Pres. York—The Board of Directors have the power to use the funds in any way they think fit for the interests of the association; that can be done any time this year, but you can't amend the constitution until next year.

Mr. Snyder—If that is the case, it is within our power to get the money for them to spend.

Pres. York—This convention can recommend that the directors do so and so.

Mr. Snyder—I move that we advise them, if they see fit, to raise the dues to one dollar straight in the National.

Mr. Huffman—We have a motion before the house. Before you put that, it might be well to consider this, and

let these people go in with the committee and see if they can get anything better.

I made a motion, which I am willing to withdraw, if my seconder will consent.

(On consent of the seconder being given, the motion was withdrawn.)

Mr. Snyder—My motion was that this committee advise the Board of Directors to raise the dues to one dollar a year.

Mr. Palmer—(Pa.) I second the motion.

Mr. Stone—Our committee decided to do that very thing, but we didn't report it because it would be brought before the Board of Directors, and they would bring that before the association at the next annual meeting.

The President here read what was stated in the constitution on the question of dues.

Mr. Huffman—I think the motion is out of order.

Mr. Snyder—I will withdraw that motion with the consent of my seconder.

(On consent being given, the motion was withdrawn.)

Mr. Hershiser—I suggest that as we are going to have a meeting of this committee this afternoon, that we fix the hour at 1 o'clock, and then these gentlemen that have ideas on the subject meet with us, and we will get along much faster and have a good chance to deliberate about it.

Mr. Huffman—I think Mr. Hershiser's suggestion is a good one.

Pres. York—Please, then, meet with the committee at 1 o'clock. I would like to hear from Dr. Gates; I think he can say something that will be a help to the committee and that we all ought to hear.

Dr. Gates—I wondered whether my remarks should come before that committee. There are one or two phases of this situation which I have had in mind. I want to say, first, I am highly gratified to see the enthusiasm run so high for re-organization.

It is very gratifying to see the attempt to re-organize and establish a sound footing. The educational phase of the convention of the National Beekeepers' Association was brought out partially in the President's address last evening. This educational phase interests me particularly. It is a



broad subject than might be at first thought. The subject might be put under three topics, and I want to venture one other hazardous remark—it might be considered by some impertinent—and yet I can't help but think that the reports of the National Bee-Keepers' Association, to be of permanent value, should be reference books for every bee-keeper, and in that connection I would suggest and urge that the reports and publications, no matter what form they take, should be put in permanent form, put on good paper, have good printing, be well edited and put in permanent, readable form so that they might be preserved. As it is today, I doubt if there are three or four libraries in the country where you could obtain a complete set of the reports of this organization for reference. I may be entirely wrong there, but I have made an attempt, two or three times, to get items published by this society, and was unable to obtain them. That point seems to me perhaps worthy of consideration.

Then, another topic for this educational phase of the convention of the National might be stated, the relation of the National to the Federal Government, or to the State Government, or the Department of Agriculture. That might, at first, not appeal to you as an educational matter, yet the Bureau of Entomology, or the Agricultural Department of that bureau, and the various agricultural commissions or departments of the State, are strictly educational institutions, and it is the relation of the National to these institutions that I have in mind to call to your attention. For instance, just to itemize one or two things which are done to promote apiculture by the Federal Government; and I might say in connection, too, that I am possibly at liberty to speak freely on this subject because I am not connected with the Department of Agriculture at Washington any more, otherwise I should hesitate about making these remarks, yet you all recognize the freeness with which samples of brood, which are considered to be diseased, are examined down there; it is an expensive procedure, yet anybody is at liberty to send in a sample which he thinks is diseased. To show you how they are spreading their information,

I believe something like 100,000 publications were gotten out from there this year, first-class publications, advanced ideas. The Bureau, or Department of Apiculture, is a source of general information. Its other function, too, is the research bureau, taking up problems which are too great, and entail too much expense. The money now expended is something like \$10,000 a year, that must pay for the entire equipment and maintenance and salaries of those connected with the work. At present the work, as you know, is largely a matter of investigation of the diseases of bees. There are other diseases of bees, probably so-called paralysis, and so-called pickled brood, which should be looked into and studied, but which at present cannot have attention because of the necessity of the focusing of the attention on the two brood-diseases, European and American Foul Brood. Those are some items of what is being done there.

My point was not to refer to that particularly, but to bring out the relation which the National should bear to that work. It seems to me if the National were functioned to its full capacity, it would be highly within their power; they would have every right to shape the nature of the work which is to be done at Washington. For instance, if the National finds out that the disease studied is not giving them satisfaction, if they find out they would rather have some other problem considered—for instance, the control of swarming—it should be within their power to control or shape the policy at Washington, and if they made the effort, and made it in the right way, they could. If they consider the disease investigation is necessary, but to spend only \$10,000 a year on examining or studying bee-diseases alone is not sufficient, and fifteen or twenty thousand dollars should be spent, so that a fuller study should be made, including the other diseases; it would be within the National's power to obtain that money, or to obtain money for other research problems. You see my point. It is merely to shape the policy at Washington, or in any of the other Agricultural State Commissions or Departments. What applies to Washington, applies equally well to the State Commissions and Departments. I will take



Massachusetts for illustration. I don't think I am overstepping my right when I say that the bee-disease inspection for Massachusetts this year was on a trial basis. The legislature put it on a trial basis for one year. This year it will come before the legislature for reconsideration. Now, I personally wish that the National organization were so constituted, were running in such a manner as to be in a position to send out their experts to Massachusetts and help us get a favorable reconsideration of the Bee Disease Law there. The whole of the Southern United States has got to have Bee Disease Laws considered, and the various States in the West and Middle West must have their laws reconsidered. All those things could be shaped, handled, helped along and promoted by the national Organization. I think possibly that will make clear the relation which I intended to bring out between the National and the Federal State Departments; but in comparison with this society as it now stands, with the conditions as they exist in Europe, I want to make just the remark which I made to one of the officers last evening, if I recall rightly, the National organization of bee-keepers in Germany, which is a small country, densely populated, but has a membership which reaches something like 85,000 to 100,000 members, and I think that the National Bee-Keepers' Association of this country has one and a half thousand members in comparison. It appears to me to be decidedly evidenced that there is something wrong with the machinery which controls the National organization.

Mr. Hershiser—As a member of this committee, I want to make a few remarks. About six or seven years ago we had perhaps two thousand members, something like that, or a little over; we have about four thousand members now. But, instead of four thousand members we ought to have forty thousand, out of about three hundred thousand bee-keepers in the United States, and I think it is up to every member of this association to make an individual effort to get in a few members. I have done so in the past, and sometimes they will stay a year or two and then drop out, but just before I came down here, a young

man that keeps a few bees, expressed the wish and intention of joining this association. I explained to him how good it was to belong to this association; nothing but the most recent and liveliest topics pertaining to bee-keeping were discussed. When this association meets it is discussing the burning questions of bee-keeping, and that dollar they expend is the most productive dollar they can spend. It is a very fine investment, because they get the information for a dollar which they want right then and there. This foul brood question, and everything else of that kind has been discussed, not so much at this meeting, but there has been a surfeit of it in the past. I think each member of the association should try to get some members in, and get more money and then it would be easier for the association to accomplish things.

The matter of raising dues, or maintaining the dues at one dollar each, is one thing that will have to be adopted in some form or other.

#### REPORT OF COMMITTEE ON NOMINATIONS.

The President called for the report of the Committee on Nominations.

Mr. Crane presented the report of the committee, as follows:

J. E. Crone, of Vermont, and E. L. Hoffman, of Minnesota, were elected president and secretary, respectively. Charles Stewart, N. Y., absent.

The following nominations were recommended:

For President: Geo. W. York, Chicago; M. V. Facey, Minn.

Vice-President: W. D. Wright, N. Y. Thos. Chantry, Cal.

Secretary, E. B. Tyrell, Mich.; Dr. B. N. Gates, Mass.; Louis Scholl, Texas.

Directors: Prof. H. A. Surface, Pa.; J. A. Stone, Ill.; A. Holekamp, Mo.; Orel L. Hershiser, N. Y.; Frank Wilcox, Wis.; W. P. Southworth, Iowa.

E. L. HOFFMAN, Sec.

Mr. Davenport moved, seconded by Mr. Stevens, that the report be adopted.

The President put the motion, which, on the vote having been taken, was declared carried, unanimously.

The President, as Mr. Byer asked to be excused from the committee on

the President's Address, appointed in his place, Mr. Jacob Huffman, of Wisconsin.

### BEST HIVE STAND.

"What is the best foundation for a hive to rest on?"

Mr. Huffman—Cement foundation.

Mr. Latham—I made a foundation for my hive last spring that has proven very satisfactory; I made it in this way: A board form was laid on the ground, and coal ashes mixed six to one with Portland cement poured into this form. It is very cheap. Twenty-six hive-stands took only seven bags of Portland cement.

Mr. Huffman—I have used the one the last gentleman has described, and I wouldn't have any other.

Mr. Stone—I asked that question because of a discussion that occurred in the Chicago-Northwestern Association last year. When I read over the proof I saw that it ended with a slab of concrete two inches thick laid flat on the ground, and Dr. Miller said, "That won't do because it will rot the hive;" I was at the same time making foundation of concrete for my hives; the form is a "U" shape. It is a delight to me to go to a hive with that shape and sort of foundation.

Mr. Huffman—With regard to the hive rotting on cement foundation, I don't think it will when you have a reversible bottom to the hive, because there is an air-space around that. If there is any danger of that, all you need to do is to cut a couple of slabs. When you have your hive-stand permanent, and you want to move the hive you can't do it. It is all right if you want it to stay in the one place.

### FOUL BROOD TREATMENT.

"The treatment of foul brood, to be answered by Dr. B. N. Gates, and Mr. Charles Stewart.

Dr. Gates—I have had only six or eight weeks' experience as inspector and Mr. Stewart has had years, and I would prefer to allow Mr. Stewart to speak on my behalf.

Mr. Stewart—I didn't know I had been slated to give a talk on bee-diseases; it was totally unexpected, but in as much as there is a call for something of this kind, I might make a few pertinent remarks, and one is this, that sooner or later the bee-dis-

ease seems to be destined to reach to every apiary; it is hardly possible to check its spread. A man said to me the other day, one of the members of this association, "The bee-disease has appeared in a totally unexpected place; there has been no traffic in bees in that section; there has been no exchange of anything whereby this disease could have been brought there." Now the question is, how did it come there? To the man that has studied this thing closely, that is a comparatively simple matter. There may have been various ways in which it may have been brought there. For instance a man may ship some honey that is a little diseased; it may have been shipped to New York or Buffalo, or wherever you choose, and when it was unloaded there may have been a little pool of honey inside of the car, and that car may have been brought into any State, and the bees may go in and visit that car and carry the honey out. Or, some person may have had a box of honey, or sent it to a friend, and this honey may have come from the diseased colony and been thrown out. So that it is a hard matter always to follow up this thing and find out where the trouble originated. It is well for every man to be prepared. The best preparation I know of today is to Italianize. Italianize all your colonies. This may seem to be quite a task. It is not necessary, unless the disease is at your door, to Italianize all at once. You may buy some fine queens and breed your own queens. There is no reason why you should not be master of this branch of the business just as well as the production of honey. If you are going to be a bee-keeper you must be what we call an all-round bee-keeper—a man who is ready to do any and all parts of the work. One of the first things you should learn is the rearing of fine queens.

Another fact I want to emphasize, and that is the strain of the Italians; they vary greatly as to vitality and vigor in cleaning up disease. The head inspector for Canada has just been discussing that thing "on the side;" and you will find some strains of bees are almost immune to this disease. The assertion has been made in this State, by a man hired to come here and attend our institutes, that he

believed a strain of bees could be bred that was practically immune to foul brood. Whether this may be so or not, I am not prepared to say, but certain it is, that some strains are almost entirely immune. So that you will use considerable care in selecting a strong, vigorous strain of Italians. This, in connection with the shaking treatment, which you are all more or less familiar with, and which has been laid down in our bulletins, seems to be the key-note for the eradication of bee-diseases, that is, so far as it may be, to produce a crop. It is a question if foul brood will ever be thoroughly eradicated, any more than the time will come when you will never hear of that contagious disease called smallpox. The germs are always present somewhere, and it is liable to break out under favorable conditions. The favorable condition to foul brood is, bees weak in vitality. One of your inspectors can go into a yard and tell you pretty nearly what would be the result of foul brood started in on that particular yard, by observing the bees carefully. If they were inbred blacks, those small, little bees, and your hives were rather antiquated and unhealthy, he would tell you in one season it would pretty nearly wipe out your apiary. If, on the other hand, they were pretty strong and vigorous, he might say he would give you about two seasons before it cleaned out the yard. In case you didn't use vigorous measures, if they were strong at times, with a low vitality, he would tell you that the disease might go all around you, and you might find little, if any at all, in your yards. I have known a man who wasn't a very good bee-keeper, in fact, way under the average as a bee-keeper, who had a large number of colonies, something over 100, perhaps 150, and he had one bad, and that was purchasing Italian queens, and he would buy them promiscuously from all over; thereby he crossed up his bees and had a vigorous strain of Italians by crossing, and he passed all through this disease in eastern New York, and while I visited his yard frequently I never found a case of disease that it was necessary to treat. In fact, I never found a case of disease in his yard. This is a strong endorsement for the Italian bee. I merely tell you these things, and I

think they will be endorsed by all inspectors. If you wish to be on the right side, Italianize.

Mr. McEvoy—This gentleman has come out squarely on that. Italianize. This black brood originates among the blacks and other crosses, and it is the outcome of neglected and uncared-for brood. The blacks are poor feeders and caretakers, and what this gentleman has said about them dwindling down, and the disease making headway, is correct. The best cure for that is to Italianize, and don't let the disease get headway. You can't save combs from foul brood, that is, once the matter is dried down and glued fast, because it is there as long as a comb lasts.

Mr. Wright—Most of the members know where I stand on that question, because I have given it a number of times to the National Association. I also believe in Italianizing in advance of the disease. That is the best preventive measure. After the disease gets in, in handling it, about the only way to do is to Italianize as soon as possible, and if your bees are all Italianized you will have very little trouble afterwards. I have had many examples of Italian bee-yards in diseased territories, and I have gone in and found very few diseased colonies in the yards. If the disease is prevalent we nearly always look into the black and hybrid colonies, and that is generally where we find it.

Mr. McEvoy—The Italians are the greatest house-cleaners. If a little larva dies, they will clean it out; they are the greatest feeders and the greatest house-cleaners, and it is to every person's interest to work the Italians. I can endorse what Mr. Wright says, every word of it.

Mr. Stewart—Another point I want to call your attention to, and that is along the lines of the Italians that are not so vigorous as others. It was a puzzle at one time how black brood spread so rapidly, and rather by accident than long series of experiments we discovered how it spread. I was traveling in the northern part of the State, or farther north than this, where there was one man had some very fine Italians among the rest, and a few colonies of goldens, and in traveling over the country we found these golden Italians got very badly diseased. About four miles away, we

found a yard of black bees, and three-quarters of them had these yellow Italians, and they were all diseased slightly. Now, the only way that this apiary could have acquired this disease apparently, or contracted the disease, was by these bees flying over them and dropping in them. I question from a badly diseased colony if a bee ever goes to the field so destitute of honey in its honey-sac that there are not some germs of European foul brood in its honey-sac, and these bees being driven down by the stress of the weather, attracted by the hum of that apiary, or possibly if the young bees dropped into these colonies and regurgitate of this honey, the disease is thereby started in those brood colonies. That sheds light on the way it might be spread by intermingling. The blacks will tolerate a lot of intermingling, whereas the Italians are not so fond of having strangers visit their home.

"Will the introduction of a good Italian queen generally cure foul brood?"

Mr. Stewart—It doesn't say what kind of foul brood. If that was the American, I wouldn't say it would cure it.

Mr. McEvoy—No, it won't.

Mr. Stewart—As an inspector, I don't like to advocate the fact that Italians introduced into outside colonies, or colonies diseased with European foul brood is the remedy to be relied on alone. If you have sickness in your family you may call up the doctor and tell him the symptoms, and perhaps he could send something to you, but it is quite essential that the doctor should come there and know all the conditions; and before I said the introduction of an Italian queen would cure that particular yard. I would want to look the ground over very carefully.

Mr. McEvoy—If it is black brood it can be carefully managed, and the combs saved, but if it is the real foul brood, the ropy stuff, it cannot be cleaned out of the combs; it never can be. It is there as long as that comb lasts, and the Italians won't do that.

"Which is the better for warding off foul brood, the dark or yellow Italians?"

Mr. Stewart—Personally all the evidence I have had has been in favor of

the dark or leather strain of Italians, but I have had reports showing that the light-colored Italians have been more successful in the hands of some people. I think that is largely owing to the vigor of the strain. I don't think we should class them as very light or leather-colored, and look for some particular qualities in the cleaning up of the disease, take any strain of Italians that are very energetic and vigorous.

Mr. Selser—I should like to put the question in the negative, and say you will introduce foul brood very often, by introducing an Italian or any other kind of queen. I want to warn those who have not seen foul brood, that they be very careful in introducing a queen. The best way of introducing a queen is, put nothing in contact with her. You should put your queen into the hive alone, without any thing else.

Mr. McEvoy—In introducing a queen, he is right; there is lots of disease introduced through Italians, but it is not the queen, it is in the candy.

Mr. West—I think the subject has been pretty well covered in regard to Italians. We get quite a good deal of proof that they are superior in withstanding the disease, because we go into a great many yards where we find the disease has first struck that locality, where it has almost ruined the apiaries, and yet we will find a few Italians that will stand until the blacks are nearly all destroyed and gone, by the disease. Take some of those colonies where they have been entirely destroyed, or down to the number of two, three and four, and they will go into the fields, and they will build up the apiaries very often, and from that strain of bees we can many times get queens that are more immune to the disease than from some other source. We find a great many that go down, where there has not been anything done, until the yards are entirely ruined, until from a certain few colonies the yard has been built up again by Italians. Many Italians suffer because of the disease. The point has been taken in regard to introducing an Italian queen, that that is one of the best things we can do. There is quite a difference in the Italian queens we introduce, and some-

times in the condition, and in the way we introduce them, but I think it is far superior if we have bees, when they become diseased, that we just swap combs, and give them frames of foundation and clean hives, and give them a new Italian queen at the same time.

At 12:30 p. m., the convention adjourned, to meet at 2 o'clock p. m.

## SECOND DAY—AFTERNOON SESSION.

At 2 o'clock p. m., the President called the convention to order.

### REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

Mr. Hershiser again presented the report of the committee appointed on the President's Address, which embraced the following resolutions, which were adopted:

Whereas, The proceedings of this convention have been especially enriched by the able address of our President, therefore, be it

Resolved, That the many wise suggestions contained therein merit our most careful consideration and attention, and that it is hoped that they will be considered by every bee-keeper as especially addressed to him.

Resolved, That it is the sense of this convention that the Board of Directors of this Association take immediate active measures to the end that the points in the President's Address be brought before all local affiliated and non-affiliated bee-keepers' associations in the United States and Canada, for discussion.

Resolved, That it is the sense of the convention that the Board of Directors of this Association use its funds as far as possible in the employment of an efficient person to organize State and County associations of bee-keepers, to be affiliated with this Association, and in all other ways to advance the organization of bee-keepers.

Resolved That it is the sense of this convention that such points in the President's Address as look to amendments in the Constitution be commended to the Board of Directors for immediate action, and that they be earnestly urged to use what power they now have to carry out the recom-

mendations in the President's Address.

O. L. HERSHISER,  
JAS. A. STONE,  
JACOB HUFFMAN.  
Committee.

Mr. Hershiser—The committee recommends that this committee on the President's Address be enlarged by the addition thereto, as ex-officio members, of the President, Secretary and General Manager of this association, and that the committee be made a permanent one during the year.

Mr. Davenport—I move that the committee be constituted, as recommended by Mr. Hershiser, and that it be made permanent during the year.

Mr. McEvoy—I second the motion.

The President put the motion, which, on a vote having been taken, was declared carried.

### REPORT OF COMMITTEE ON RESOLUTIONS.

The President called for the report of the Committee on Resolutions.

Mr. Hershiser presented the report of the Committee on Resolutions, which, on motion, duly seconded, was adopted as follows:

The Committee on Resolutions beg to report as follows:

1. Whereas, The National Bee-Keepers' Association has been privileged to hold its convention in the Common Council Chamber in the City Hall of Albany,

Resolved, That the thanks of this association and convention are due the authorities of the City of Albany, and especially to Mr. David E. Pugh, superintendent of this building, for granting to us and so kindly arranging for our use thereof, and also for the use of the Recorder's court room for showing objects of interest to bee-keepers.

2. Whereas, Mr. W. D. Wright has been especially active in the interests of this convention, and the completion of excellent arrangements for the same.

Resolved, That the thanks of this association and convention are due Mr. Wright for his activities in this behalf.

Whereas; We have learned with deep regret of the continued illness of our mutual friend, W. Z. Hutchinson, one who has in the past filled



various official positions in this association, and who has by his self-sacrificing principles endeared himself to bee-keepers all over the continent.

Resolved, That this association deeply sympathizes with him and his family, and unitedly join in the hope that he may soon be restored to his usual health; and, be it further resolved, That a copy of this resolution be forwarded to Mr. Hutchinson forthwith, by the acting secretary of this association.

4. Whereas, Eternal vigilance seems necessary to prevent exorbitant freight rates on honey, therefore be it

Resolved, That we urge Congress and the Inter-State Commerce Commission to protect the bee-keeping industry, by preventing any increase in freight-rates on honey, and, be it further

Resolved, That the President, Secretary and General Manager be appointed a standing committee to look after the interests of the bee-keepers in all matters pertaining to freight rates.

Whereas it has come to our knowledge that Mr. G. M. Doolittle, of Bordino, N. Y., who has for so many years rendered invaluable services to the bee-keeping world with pen and voice, is about to retire, or has retired, from our ranks as an active bee-keeper, be it

Resolved, That we deeply appreciate his valuable services to us in the past, and we hope for a continuance of his wise counsel for years to come; and be it further

Resolved, That a copy of this resolution be forwarded to Mr. Doolittle by our acting secretary, forthwith.

6. Whereas, The proceedings of this convention have been especially enriched by the able address of our President, be it

Resolved, That the many wise suggestions contained therein merit our most careful consideration and attention, and that it is hoped that the matters contained therein will be considered by every bee-keeper as especially addressed to him.

7. Whereas, It is evident to every thoughtful bee-keeper that the compensation of our General Manager, Mr. N. E. France, is inadequate for the services rendered, be it

Resolved, That he has been self-sacrificing and generous in his telling

efforts for the betterment of the conditions of bee-keepers, and that we recognize the justice of better material compensation for his valuable and unselfish services.

OREL L. HERSHISER,

J. L. BYER,

E. L. HOFMANN,

Committee.

Pres. York—I assure you I appreciate very deeply the resolution referring to my address. For years I have hoped I might be able to do something for bee-keepers. I believe I have attended every convention of the National Association if I mistake not, I am the only one here who has attended every convention during those years. It is a real pleasure to me to meet bee-keepers in all parts of the country, and it seems to me I have never enjoyed a convention as I have this one. I want to thank you for the passing of this resolution.

Mr. Davis—I would like to add a resolution to that, with the permission of the committee. The Custom House Department of the United States Government charge 20 cents a gallon duty on honey, and honey, according to the United States Custom House Department, weighs 8 pounds to the gallon. All honey is imported by weigh at 20 cents a gallon, and reckoned at 8 pounds to the gallon. Now, that is mis-information on the part of a would-be purchaser. In other words, the United States Government puts their official seal as to the weight of honey to be less than water, and I submit the following resolution:

Resolved, That the Department of Agriculture standardize the weight of honey to be 12 pounds to the gallon. The President and General Manager to be a committee to see this is brought to the attention of the proper authorities.

(This motion, on being duly seconded, was adopted.)

#### **SALARY OF GENERAL MANAGER**

Mr. Davenport—The resolution referring to the services of the manager, N. E. France, is an important one, and the convention has shown their appreciation of those services in this resolution, as they have undoubtedly through all the years realized the great benefit we have derived from his services. I understand that is



only a suggestion. Does it rest there? I move that the matter of the increase of his salary or compensation for his services be taken into consideration by the standing committee of three, and the President, Secretary and Manager.

On the motion being duly seconded, it was adopted.

The President called for the paper by Mr. F. H. Cyrenius, on "When and How to Re-queen With a Fall Honey Flow."

Mr. Cyrenius—In my talk last night some of the people complained in the back part of the room that they couldn't hear all of my demonstrations, and as I have some to make, if you will excuse me, I will take the platform. Last evening I omitted two or three of my conveniences and comforts in the bee-yard, and with the President's permission I will try to explain them to you now.

#### BEE ESCAPE.

First, I had a bee-escape board with me, but it has been misplaced. We have had a good many directions about placing a bee-escape under the boxes, and how to pull the boxes over them. Now, if you will make your bee-escape in two pieces, one piece occupying about three-quarters of the hive's length, and one piece one-quarter of its whole length, then when you go to put it on the hive lift up the super and put the long piece under, then the short piece can be slipped in. It saves a whole lot of lifting. It doesn't matter in which part you have the bee-escape.

#### DRAIN THE CAPPINGS.

Now, we have talked a good deal about cappings and capping holders for extracting honey. Lately I have adopted this plan: If you have a good, stiff honey-knife, all right; if not, take a small sized trowel, and after you get a little bunch of cappings in the tub of melter, mix it up into a regular mortar. You have no idea how much more honey will run out in that way. One time I had about a bushel of those cappings that had run out, and I put them on a big piece of brown paper, and there wasn't enough honey left to wet through the paper.

One more comfort to me has been that discarded old Given foundation

press that I have had away back since 1878, making the best foundation on earth; a foundation you can put right in the box, half one and half the other, and the bees draw out the old Given foundation first, and I can make it so thin that the wax is all in the partitions of the cells, and will even push the bottom right out of the base.

#### ALARM ON SCALES.

One thing more: I have had some questions about this bell. One party wanted to know how I fastened it on the scales. It is not fastened at all. This simply rests against the post of the scales, and when the honey brings up the weight it simply drops down. You can do that without a bell; you can take an old pie-tin, and have a hammer hard enough so that you will hear the noise when this weight comes down, and know your can is full of honey.

#### WHEN AND HOW TO RE-QUEEN WITH A FALL HONEY-FLOW.

Now, it has been my purpose for a number of years to devise a plan whereby an apiary could be re-queened every year, if necessary, without expense, and the best possible queens reared in doing it. I suppose I will have plenty of opposition along these lines, but I have been pretty careful in my training, and one thing I want you to understand before we begin is that this is not for your locality, it is for mine; it is designed for the locality that has two honey-flows—a clover honey-flow beginning about June 18, and another one beginning about August 18. Those are my conditions, and that is what this plan is made for. I rear my queens all at one stroke, so to speak, in one litter; whether it is 25 or 50, or 100, or 200, they are all reared in one motion. They are reared at the time of the year when it is most propitious for them; they are reared at a time of the year when it is nature's time. Josh Billings told us the best time to set a hen was when she wanted to sit, and I believe he is right; and the rearing of these queens should be done when they have the least to do otherwise.

Now we start in the spring of the year with a Langstroth hive, 8-frame, I use, when the supers are full of

honey; it is about as heavy, I think, as a little skinny fellow like me ought to handle! After we have selected the very best possible queens we can find—those are the ones we breed from, because if this plan is carried out to all its intents and purposes, such a thing as a natural cell will hardly be seen during the season. About May 15, I go to my colonies that I have selected for rearing the drones, and I rear any quantity of drones. This rearing, two or three frames of brood is the principal expense of my queen-rearing. Now, we come to the other swarms.

About the time apple-trees blossom, I come along with my colony that is strong enough, and raise it up, and put a hive of empty combs underneath. I do that to save the animal heat. I believe that the place to keep them is at the top. The queen has the full run of everything until about June 1. The 1st of June, I begin to prepare for queen-rearing. I go now to all my hives through the yard and get up about three-fifths of the brood in the upper chambers, with the queen below, and a zinc between the two. I have found a great many advantages in putting part of the brood in the upper chamber, and especially for extracted honey production.

About June 10 I select about 10 per cent. of the strongest colonies I have, and I simply take this queen away and set it on a new stand, and set this part down on the stand occupied by the old field-bees. It is a strong colony to begin with, and now its forces are augmented by all the forces of the field. Its brood is all ten days old. You see it has plenty of brood; it is hatching out one or two thousand eggs a day, and it is hopelessly queenless. Those bees soon discover that they are queenless, and they are in desperate straits for a queen, and it is a powerful colony.

Let me digress. I go to my colony that I am to rear the queens from, and take a good share of their brood away, and put in some combs which I don't value very highly; I do this along any time between the 1st and 10th of June. That makes the age come right along in order, so that I can find just the kind of brood I want. I can find a frame of just eggs, I can find another frame (perhaps nearly

all of it) just larvae which have started. I don't believe we can rear as good queens from brood that is one, two or three days in larvae, as if we make the start from the eggs. I go to this breeding colony, take out this comb, and cut some strips off where the eggs are, and put the cells the other way, looking up and looking down; put them right in between the frames, anyway. There is no objection to your transferring this brood by the Doolittle method if you care to do it, but by this other method you can do it in a quarter of the time. Last year I had two colonies that made 52 queen-cells almost as long as my finger. After this these queens are in here about 48 hours. If you have the time, examine, and if you haven't, destroy part of those cells as Henry Alley has directed, you will find lots of those cells so close together you can't separate them. If you will take one of those plugs or a rake-tooth and make a hole in the comb any place, and take the dipping spoon and dip that larvae out, and dip it right in this hole, or in the queen-cell, or anywhere, that does away with the queen-cells you can't use, and you have got them separate and apart. Now, I have always found about 10 per cent of my colonies give me an abundance of cells.

Now, about June 20, our honey is coming, our clover begins to open, and now we are ready for operations. At this time all these chambers are set off on a new place; that lets the old bees come back in the old hive, and these cells are put in a cell-protector to hatch out; it doesn't stop those bees from making one ounce of honey.

To get at the box-honey part of it, I use a very shallow chamber; three frames of that would take one sheet of Langstroth foundation. About June 10, we will say, I shake this old queen off into this little bit of a shallow chamber, and put a queen-excluding board over, and right above that I put all their brood. If I should put the queen in that little bit of a chamber, without this great quantity of brood on top, they would swarm right away. We all know that. Then the queen must lay eggs in the cells; it takes 16 days for them to hatch. I figure on only about 10 or 12 days. The 20th of June comes, and we are ready

for our honey harvest. I take this all away, and I take the old queen and put her in the cage, and cage her up in there. Now you can do one of two things, you can take the queen away entirely and let them start some cells, or give them some of these choice cells, or leave the old queen in. Preferably, I have left the old queen with the hive.

There is one little point I have not had experience enough with to lay down as an orthodox rule, and that is whether those queens will start artificial cells with the intention of using them for swarming purposes or not. Last year mine did not. So that until I find some reason to change, I will cage this old queen in there. You must have at least one part of the empty comb in there to catch the pollen so that it doesn't get in the boxes. Then with a piece of zinc on this little bit of shallow hive I put on the supers. I have been gratified and more than pleased with the way those bees will put the honey in the hive. They haven't anything to do but bring in honey and store it in the boxes. There is no brood to amount to anything to take care of.

Now, I presume you people will think I am scrimping the queen's egg-laying capacity. Not in the least. I have all the eggs, I have all the bees, I have all the queens laying at all times, and any time I want them. From the 1st to the 5th of July I want all the queens possible beginning to lay. I think I can safely say if we will destroy a queen just as soon as the honey harvest is coming we can double our clover crop. That is my experience. Some three or four years ago, in handling my bees about the 20th of June, I killed a queen, accidentally, and looking there a little later I found the hive crammed full of honey, at least double the honey that any other hive had produced, and the hint wasn't lost. I believe I am right in saying if we can keep the energies of our queens up to the highest standard, that our white honey harvest will be at least double.

Now, I want to shift this to extracted honey. I think it will be a good idea to use that little thing right along in connection with extracted honey. But, suppose you don't want to. I am going to digress a little bit and go

back to our old management. Now, here we have the 20th of June, our great quantity of queen-cells—we have them to use, the best of them. Now, I set this upper brood off on the side. If I want to let this old queen keep on laying I prefer to cage her. But this one now is a little weak because it is moved off its new place, or you may leave it on the old stand. She hatches out, and she is a laying queen about the 3d of July, just right for my fall honey-flow. If your flow is a little earlier than that, and you want to follow out this manipulation, do it a little earlier, corresponding with your season. Now then, I have got these two queens laying the first of July, both of them for golden-rod. This one has her young queen, and we have a chance to test her a little bit. If her bees happen to prove a little inferior, I give her a mark that I don't want to use her. I may have a queen in this hive a year old that I prefer to that one, but not very often. When the golden-rod honey comes, I kill one of these queens, usually the old queen, and I think hereafter I shall put this little bit of shallow hive on and call that the hive, because that will fix the bees in much better shape for winter quarters; it will give them a capacity of about 11 frames, and that little passageway between the frames, it seems to me, will put them in pretty good order for winter quarters. Above this we put our zinc board. Above this we put all that is left after killing the queen, brood, hive and honey, we put that on there for surplus. There are two powerful colonies of bees ready to go into the fall supply. This year I have found I needed another set of combs on there to give the bees room. We have had a pretty cold fall, and some of my best colonies that have been treated in that sort of way have filled this all full of honey this fall.

Now, you can imagine the condition those bees are in for the winter. They have had the bees from two queens right through the honey harvest—the worker bees—and they go into winter quarters much stronger than they would with one queen, and I find that my honey crop is very much increased by this plan.

A member—Do you get any increase at all, then?

Mr. Cyrenius—No, sir, I should have

told you on the start that it wasn't for increase at all, but you can have all the increase you want. My plan was to increase the honey crop and not the bees; keep the same number. I generally increase a little bit, about ten per cent more than I want, because some of these queens will be lost, but you are not obliged to unite them here unless you want to. I unite them because it is the increase of honey I want. I have all the bees I care for, so I increase only in that way to get all the queens I can, laying for the fall harvest, and then unite them again, and go on in that way. It gives you double energy for the fall honey, and more advantages are gained in proportion by having our bees very strong in the fall, than in June. You might say, how can you expand and increase your bees, and yet, at the same time, consolidate them? With this little hive I have a larger swarm of bees than if they had swarmed naturally. It is a swarm time of the year, and I can give just enough to go on and take care of the brood and queen cell, which is almost ripe and ready to hatch, so that the great forces of the bees are in this little bit of a shallow hive. You might ask why I use such a shallow hive. It is simply this: when you have the queen caged, or kill the queen, the bees will fill every cell of comb before they will go in the boxes. In this case they haven't much of that kind of work to do.

I thank you for your attention. (Applause.)

Mr. McEvoy—That gentleman gave you a system that will give you a large crop of extracted honey.

Mr. Yates—Have you combs in this narrow part of the hive?

Mr. Cyrenius—Sure; I have combs in that the same as in any chamber.

Mr. Root—How deep is this shallow chamber?

Mr. Cyrenius—I think the frames are 3 and 7-8; a sheet of foundation just cuts up into three frames. For a great many purposes I like to put this brood in the upper chamber. When I have some queens coming from some breeder I always like to have them come by the 1st of July, if I am going to use them for next year; that gives me 11 months to test them. A week before the queens come I see the brood is in the upper chamber, and

when the queens come I haven't got to hunt for them. There is a lot of queenless broods up here, and I move this on the new stand, and the old bees desert this. I have nothing left but the young queen, and she accepts the new queen very easily. I never lost a queen.

Mr. McEvoy—All the old field-bees that might attack this one have gone to gather honey.

Mr. Davenport—What is your management when you take your bees out in the spring?

Mr. Cyrenius—It has been common and customary for the bee-keepers to want a very nice, warm day to set the bees out of the cellar. Now, I want a day that is down to freezing, or if I can get into a little flurry of a snow storm, that is what I call a good day. Then the bees settle down, and when it comes a nice day, they fly easily. I clean the bottom-boards off, and if I know they have got plenty of honey I don't disturb them again until the 20th of May. I think the very best stimulant we can give our bees is a good letting alone, and, as Doolittle says, it is millions of pounds of honey in our combs. It is the nature of the bees to cover all the brood they can in the spring of the year. With the bees I winter out doors I have a box a little larger than a hive; I take forest leaves and fill it level, and then I put a board in which just fits in there; I press it down and get on it with my feet and press it down hard to the bottom. I press that down over the hive, and it is the best protection I know of for wintering. I leave that on there until about the 20th of May, when our fruit-bloom comes, and I need another super.

Mr. Davenport—You have a deep and shallow chamber. I understood you to say that you used the shallow chamber to reinforce the stores of the bees for winter.

Mr. Cyrenius—Yes.

Mr. Davenport—How do you manipulate those two in the spring?

Mr. Cyrenius—Just as though it was one hive. There is no manipulation at all until June.

The President called on Mr. France to read the paper by Wesley Foster, of Boulder, Colo., on "Methods of Retailing Honey."

Mr. France read the paper as follows:

## METHODS OF RETAILING HONEY.

The different ways of retailing honey depend upon the kind of honey and the style of package. If we are going to sell honey from our own house, or from the wagon on the street, we can use tin pails or cans for extracted, and sell bulk comb honey or comb honey in sections without putting in a glassed shipping case. The most economically produced honey is that which costs us the least, in time for the quantity and quality, and extracted honey and bulk comb honey come within this class. Extracted honey costs less for packages in the larger sizes of tin, and this is the most convenient way to retail it from one's own house, some families using two 60-pound cans a year. There is hardly a family that would not buy a gallon pail once in a while if taught to eat honey.

Where bulk and broken comb honey is sold from the house or store, oyster pails are very convenient to put it in and these packages are very inexpensive.

These methods of retailing honey are very economical; the consumer gets a tin pail that can be used again, and in case of the bulk comb honey in oyster pails, the cost of the package is almost nothing. But though this is the most economical way to sell honey it does not work so well with the grocers. An extracted honey sells better in glass jars of tasteful design and attractive labels in a grocery than in tin where the customer cannot see the color and thickness of the goods. Comb honey must be well displayed in glass shipping-cases that will keep out dust and flies, to take well in the stores. The demand for looks in all store goods is now so insistent that an uninteresting package will not go at all well. Looks cost money, so that the customer gets far less for his money than he would if the large tin packages or bulk comb honey were bought. Although the more costly we must recognize the condition and follow the methods that will dispose of the most honey at the best price, and the grocers are now, and will be for a long time, the means to dispose of the bulk of our crop. By making arrangements with a grocer in advance, one can make a house-to-house canvass with samples,

and take orders for honey to be delivered through the grocer.

Then another plan that works quite well, and is as effective as far as it goes, is in demonstrating in the grocery stores to the customers. This plan is good, and if one can sell enough honey for the grocer to pay the expenses of the demonstration the method is a good one, for then the advertising pays its own way. The coffee, tea, cocoa, breakfast food manufacturers, etc., generally sell enough this way to pay the expenses, and sometimes a profit is made on the business done. The future business always justifies the expenditure where the plan is worked at all intelligently.

I have felt for some time that we should adopt the progressive methods of the firms selling their goods nationally. We have had articles in the bee-papers about the one-horse wagons fixed up for peddling from house to house, and while this way is not to be frowned upon it is time we were adopting more wholesale and up-to-date means. I believe the only way to get a better price is to put up an article in a small but attractive jar, with distinctive labels bearing a regular brand name. Then we can advertise and do some pushing of the honey.

The retailing of honey through the grocer, then, to sum it up, is the only method that will do much to spread the use of honey throughout the country. We can build up a local demand in our own town by calling from house to house, but the fact that most of the food of the people is bought through the groceries will always be against the success of home-made ways. We must recognize the direction of the wind and go accordingly, and the wind in the sails is going to carry the craft of bee-culture through the regular channels of distribution.

I will continue to stimulate the the sale of extracted and comb honey in bulk and large packages around home, because it is a saving for those who have honey and can hardly get all they would like, but the fact is that a small 10, 15 or 25 cent jar of fancy white extracted honey, put up with a distinctive label and a suggestive brand name, will sell more honey in more markets through the whole



year, than the old and perhaps more economical methods. The smaller packages can be sold at a price that will pay for some money being spent for advertising, store demonstrations, and exhibits at fairs, and also for house-to-house canvasses, though these latter, if conducted by good men, will pay their own way. We can consistently hope soon for a new era of honey consumption, when honey is as easily secured in the stores of the country as crackers, and of as good and uniform a quality.

This new era will come (and is partially here now) when more attention is paid to the ripening of honey on the hives for extracting, and greater care used in the production of a finer grade of comb honey by the use of separators; honey-boards in place of burlap sacks; the building of comb honey over new, clean combs below, and the keeping of all the loose propolis cleaned up in the yard so that bees cannot get to it. We should use more care in putting our comb honey up in attractive cases for display in the stores, and they should be dust and fly-proof. Paraffined paper wrappers will aid in keeping the combs in fine shape till the consumer gets the cake of honey.

A method of increasing sales through the retailer that is a sure winner, is to cultivate the honey-taste of the grocer, his clerks, and their families; when this is done you will see the sales jump at once, for they then talk honey enthusiastically.

In all this work of spreading the sale of honey, remember that we must be more than order-takers; we must sell where the people are not convinced when we meet them; there is not a demand to be filled, there is a demand to be created, a want to be aroused, and it takes push, insistence and initiative.

Our work is to adopt modern methods of distribution and sale, and then hustle just as energetically as our glucose brothers do.

WESLEY FOSTER.

Boulder, Colo.

Pres. York—I will ask Mr. Angus to read the next paper, by Mr. J. J. Wilder, of Cordele, Ga., on "Southern Honey-Production — Present Conditions and Future Possibilities."

Mr. Angus read the paper as follows:

### **SOUTHERN HONEY-PRODUCTION —ITS PRESENT CONDITIONS AND FUTURE POSSIBILITIES.**

Honey production in the south has never been brought properly before the bee-keeping world; and, in a general way, but little is known as to what we are really doing here in this line of business at present, and what we can do is only a jest, or a faint dream, even to us, who live in the south, and are interested, and follow bee-keeping to some extent. So I cannot, and am not competent to give this great question of honey production over such a broad territory, justice. But permit me to say that here and there all over the Southland we are at it in a way, and many of us in dead earnest, and putting forth great efforts to establish extensive businesses. Some have succeeded to that extent where bee-keeping is the principal industry, in certain sections. These sections are mostly found in the tupelogram regions, along the Mississippi and Apalachicola Rivers. Then it is followed to no small extent in the clover regions of Mississippi, Tennessee, and Alabama. Also, in the partridge-pea, saw-palmetto and black mangrove regions of Georgia. Leaving these regions, we find the bee-keepers producing honey profitably from the more common sources of honey, such as poplar, cotton, sourwood, asters, etc.

The largest honey-producers, with few exceptions, produce only extracted honey; while there are some in the clover, partridge-pea and gallberry region who produce comb honey in sections, exclusively, and others in two or more of the other different ways.

The bulk of the honey produced by the most extensive bee-keepers is shipped to the Northern market, and the small producers ship their honey to the local markets.

The present condition of the Southern honey-production is all that can be expected where modern appliances and methods of management are employed. As a rule, the bee-keepers are extending their business further and further out into the unoccupied territory around them. "More bees," and how to best manage them, is the



general topic among the bee-keepers. The smaller bee-keepers are awakening to the fact that they are losing ground, and are striving for practical information. There is another class, which we call "hard-shell" bee-keepers, who use only the log-gum, or box-hives. These bee-keepers will be out of business as soon as some energetic man comes along to buy them. And the outside world is becoming more and more interested, and fast swelling the number who are putting forth efforts for the betterment of honey-production.

Our greatest drawback has been a market for our product, but this obstacle is now removed, and we are no longer able to supply the demand. But this has been accomplished only after great efforts on the part of the leading bee-keepers.

Our Southern cane crop is smaller each season on account of the drouth late in the summer and extending through the season in which the cane matures. This makes syrup scarce, and that which is obtainable is not very wholesome or satisfactory. For general table use, honey is next to syrup, and this would naturally bring about a great change in the demand for honey.

Surely, never before in the history of Southern honey-production has it received the earnest consideration it has at this present time, and we fully believe, taking all things into consideration, that the time has about come for Southern honey-production to come up to as high a standard as it has elsewhere. The great amount of bee-supplies that have been placed over the South for the last few seasons, by the bee-supply manufacturers and their agents, will substantiate me in the above assertions.

But what about the future? I dare not take the opportunity on this occasion to boost honey-production in my part of the world, but from what I know of honey-production elsewhere, and from the testimonials of others who have moved into our Southland, the possibilities are just as great here as in other countries where it has so wonderfully developed; and on account of not having to fight diseases and solve wintering problems as the bee-keepers have to do in other countries, it makes the possibilities greater

here for the more extensive producers, for we do not have the two drawbacks to contend with. While the average in some southern localities may not be as great as elsewhere, yet the obstacles are fewer, and make up for the shortage.

The vast amount of unoccupied territory and the transportation over same; the great number of colonies of bees in a neglected condition well scattered over this country, seemingly awaiting their term for culture; the many sources of honey, or great variety of honey-plants coming in bloom at different times of the year; the long seasons, the beautiful country; the pleasant climate; the many different kinds of location—on top of the mountain, down in the valley of plains, out on the level country along the rivers, lakes, and on the beach can be found locations to suit all, either for a small or an extensive business, these with many other advantages and a ready market for the product, make the possibilities for honey-production almost beyond conception here in the South, and the energetic bee-keeper who loves to hustle certainly has here a fertile field in which to exert himself.

J. J. WILDER.

Cordele, Ga.

#### FEEDING BETWEEN FRUIT-BLOSSOM AND CLOVER.

"Will Mr. Crane please tell us about how much more honey he received through feeding his bees between fruit-blossom and clover, in 1910?"

J. E. Crane—This is a very interesting question, and one of exceeding importance. I would say frankly, to start with, that I don't know, but there are a great many questions we don't know how to answer that are nevertheless very valuable to ask, and then guess at or arrive at a conclusion as nearly as possible. I say I don't know. We fed about two thousand pounds, and the probabilities, are, so far as I can estimate, that that two thousand pounds brought us in at least 20 thousand pounds of honey. This is the way I get at it. One of my neighbors, an excellent man, who is a tinsmith, by the way, but keeps bees as a side-issue, got so busy at work with his profession that he, like most of us,

thought his bees had honey enough, and neglected them. He received almost no honey at all this season. What little he secured of comb honey is in my honey-room, perhaps 150 pounds. He must have 20 or 30 colonies of bees. I merely state this to show the importance of watching our bees at all times, and seeing that they are always supplied with honey. We fed about a thousand pounds of honey. The sugar was mostly made into a syrup, and fed as a syrup in the hives. The honey we fed was white clover honey mixed with the white daisy, giving it a better taste. That was in ten-gallon cans, and I would ladle out a pound or two at a time with a wooden ladle, going around through the yard, and wherever needed I would supply them.

Mr. Cyrenius—When do you begin to feed your bees in the spring?

Mr. Crane—There is no time in the whole year when the feeding is so valuable as it is between fruit-blossom and white clover. That is the time when you need brood reared in the largest quantity, and if the honey fails, as it almost always does during that time, the rearing of brood, unless there is a good supply of honey in the hives, is cut off, and that cuts off our workers, and cuts down our storing of honey.

Mr. McEvoy—The fate of the honey crop hangs upon feeding at that time. I would uncap that about every other evening. The brood is never as well fed after they use the unsealed honey, and I would feed them because you are bringing forward the brood that is going to gather your honey crop. During 25 or 30 years I have pushed the feeding at that time, because the fate of the honey crop hangs upon feeding at that time.

Mr. Lansing—How many colonies of bees?

Mr. Crane—We had in the spring about 600 colonies.

Mr. Root—That is so important, because those of us who have had large experience have found sometimes during that time the bees will begin to kill their drones, and even tear out their comb.

"Will our delegate, Mr. E. L. Hofmann, of Minnesota, give us in a very few words how he cares for his bees and gets those large crops of honey in the North?"

Mr. Hofmann—I had this struck off hurriedly, and there was one thing I omitted. If you have disease in your yard. You probably could not use this.

### PROFITABLE BEE-MANAGEMENT WITHOUT SWARMING.

I am asked to explain my method of managing bees for profit without swarming. This I will endeavor to do briefly, and with no pretense of advancing anything new.

Among the features, that recommended the plan to me, and led me to adopt it, are these: It combines the advantages of in-door and out-door wintering; it gives us strong colonies early in the season, controls swarming, and keeps the bees and brood together throughout the season; it gives the queen unlimited room during the height of the egg-laying season and at extracting time there is never any brood, in the supers, to contend with; it does not make it necessary to have brood-chambers and supers of different depths, nor does it require a specially made hive.

Our supers and brood chambers are all alike. We use nothing but the regular single-walled 10-frame body, holding frames of Langstroth dimensions. With us it has yielded remarkable returns in honey, and I might also say that all the storing is done in the supers first, and if the season is not above the average, the bees will have to be fed in some way or other.

Before going into detail, I want to emphasize the fact that, to have the best success, you must have a good, vigorous queen not over two years old, and you should have at least two full-depth supers, filled with combs, ready for each colony, and if these combs have had brood in them, so much the better.

Each year after the bass-wood flow, all two-year old queens are superseded artificially. This one thing, more than else, helps to keep up a remarkable uniformity among colonies, and, when a visit is made to an out-yard, all colonies are generally ready for the same treatment.

If there should be anything in my method to arouse sufficient interest in this convention, then the reasons for managing and manipulating, as I do, will be brought out in discussion.

therefore, I will not do so as I proceed.

The bees are put into winter quarters early, with at least 30 pounds of stores per colony.

Over the bees (we winter in cellars that are apt to become damp) we place a Hill's device, and over this set a three-inch-deep tray having a bottom of light weight canvas, and filled with clover chaff.

Any time, after March 1st, should there be prospects of the bees taking a flight, they are taken from the cellar in the evening. The entrances are contracted and the hives wrapped with at least two thicknesses of heavy express paper, and an eleven-inch deep telescope cover put on over the whole. The cover serves two purposes: now it helps to keep the hives warm, and later it is a protection against the hot sun.

A strip of paper, cut from a three-foot roll, measuring six feet and two inches in length, and folded to measure three feet by three feet and one inch, will completely wrap a 10-frame hive. Before taken to the bee-yard, the paper is folded over a form, to crease it, and it is then only the work of a moment to wrap a hive. A smooth string (twine with a loop on one end) is passed around the paper and tied on one corner of the hive. After forming the knot the string is slid downward to draw it taut all the way round the hive.

After the first flight the bottom boards are cleaned, and if any colonies are found weak their brood-chambers are contracted with a chaff division-boards.

All the stimulation our bees get, to give us workers for a white clover flow, is to allow them to have early flights, and keeping them comfortably in a warm, dry hive with plenty of stores.

Just before fruit-bloom, the colonies are raised up and hive-bodies, filled with empty combs, placed under them. In this way the bees are given more room and at the same time they and the brood are left in the upper or warmest part of the hive, which they would naturally select.

At extracting time we always set aside, for spring feeding, at least one brood-comb of honey per colony. At the time the bees are raised up, all

those that need feeding are given a comb of honey, with caps bruised, which is put in the center of the body containing the empty comb. Of course, this work should then be done on a cool day, or in the evening, to make sure there will be no robbing.

Carrying this honey up from below, and stimulated further by a few days' gathering from fruit-blossoms, the queen soon fills the remaining cells, in the upper story, with brood, and in about ten days the colony is ready to be treated again. At this manipulation, the wrapping is taken off and the bodies reversed. By this time the colonies have grown very populous, the combs have the colony odor, and in a few minutes the upper story is fully occupied. No excluder is used at this time, and the queen goes up with the bees. The wrapping is put on the upper story again, and left on until the next and last treatment.

Now a word of caution. If the hive bodies are reversed at a time when honey is coming in, the bees are apt to begin storing in the center of the upper chamber, and the queen will then be somewhat reluctant about going up. This condition will sometimes cause colonies to swarm. The combs of honey should be moved to the sides of the upper chamber and empty combs put in their stead.

When white clover begins to yield we apply the following treatment: To begin work, we have some rubber-cloths and two empty hive-bodies on a wheel barrow. After learning how many combs of brood we have in the upper story, of a colony, this part of the hive is taken off and set on a bee-tight bottom-board.

Next we take enough combs, of the youngest brood, from the lower story, to fill a ten-frame body with those we found in the upper story. As the combs of brood are taken from the hive the bees are shaken off in front of it and the combs placed in one of the empty bodies.

The remaining brood, in the lower story, which is sealed and hatching brood, is moved to the center, and the vacant space filled up with combs. The side combs are left undisturbed.

An excluder is now put on, and on top of this an empty body having a three-eighths-inch hole near the bottom of the end, facing with the main

entrance. Into this super, after shaking off the bees, we put all the combs of honey that are in the body on the bee-tight bottom-board. The combs of honey are placed in near the sides and the center filled in with empty combs. On top of all we place the body with the young brood, and on the eighth and ninth days we destroy the queen-cells built in the upper stories.

Every bee-keeper knows how a colony will concentrate its efforts on an empty super when placed under another partly filled with honey. In manipulating to prevent swarming, I take advantage of this knowledge and divide the hive vertically and horizontally. A colony with a hive arranged in this way will need no energy shaken into it.

With this plan the comb-builders and nurse-bees, which are the young and hatching bees, are not taken away as in the case of "shook"-swarming. As fast as they hatch in the upper story they replace the bees constantly dying of old age. It makes no difference with the plan whether queen-cells are started or not. This going over all colonies once every week, as some advise, to see if queen-cells are started is an endless job. When you and the bees are ready, you just go right on and do the work, and you will find that such as have queen-cells started will do no better than those that have not. By going right ahead when you and the bees and the harvest are ready, you have your swarming all done up at once, and you are ready to go at other work. E. L. HOFMANN.  
Janesville, Minnesota.

Mr. France—As a judge at the Minnesota State Fair, I want to say in behalf of Mr. Hofmann, of all the attractions, the one that held the audience of bee-keepers was his practical manipulation and explanation of this same thing. If we can put such things as that into practical demonstration, to advertise our business at the fairs, it is a good thing. If we will carefully read his manipulation up in the North, it is applicable to other climates as well as Northern Minnesota.

#### PROPORTION OF SUGAR SYRUP.

"In the formula for sugar syrup for feeding, are the proportions 'two of sugar to one of water,' meant for weight or by measure?"

Mr. McEvoy—Either.

#### INTRODUCING OLD VIRGIN QUEENS.

"What is the simplest and best way to introduce old virgin queens?"

A member—Cut her head off.

#### INTRODUCING VIRGIN QUEENS.

"How soon after hatching can a virgin queen be caged without injuring her, before introducing to a colony?"

A member—The sooner the better.

#### POSITION OF COMBS IN WINTERING.

"Should combs be close together or far apart for wintering bees?"

Mr. McEvoy—No, leave them in their regular position, and as soon as the honey is used out in the spring they are ready for use. If they are spaced out a queen will neglect these, and you will get less brood.

#### BEE-ESCAPES.

"Is there any better bee-escape than the present Porter escape?"

Mr. McEvoy—None.

Mr. Stone—I think the escape on the cover of the box is very much better than the Porter bee-escape.

#### WHEN TO ITALIANIZE.

"When is the best time to Italianize a colony of bees?"

Mr. McEvoy—During the honey-flow.

#### INTRODUCING QUEENS.

"When is the best time to introduce a new queen into a weak colony?"

Mr. Selser—As quickly as possible.

#### BEEES AS LIFE WORK.

"A young man having had twelve years' experience with bees desires to go into the business extensively and make it his life work. How could he locate a first-class bee-range and still not get into conflict with another bee-keeper's territory?"

Mr. McEvoy—Hunt for one.

Mr. Ross—Advertise in the bee-papers.

#### SIZE OF HIVES.

"Would it be advisable for a beginner to start with 12-frame hives?"

Mr. McEvoy—No, he should not start at any time with that.

#### WHEN TO RE-QUEEN COLONIES.

"What is the best time for a bee-keeper living in this part of the State of New York to re-queen?"

Mr. Cyrenius—I would say about six weeks before a honey-flow.

#### TOP-FLOW AND TRAVEL-STAIN.

"Can top-bars for the prevention of travel-bars stain and propolis on section boxes be recommended as economical?"

Mr. McEvoy—Yes.

#### CLEANING SECTIONS.

"What is the best method of cleaning propolis and travel-stain from these sections?"

A member—The best thing I have found is a good, sharp penknife.

#### "FRANCE" HONEY-CAN.

"What is that honey-can here for?"

Mr. France—I suppose you mean this five-gallon can. I have tried since you have had me in harness to find something better for the bee-keepers in the line of five-gallon cans for selling and shipping honey, and I am no dealer or interested in any man's supplies. This is the can I prefer to any other package I have seen. It is a round five-gallon can, set it in any receptacle and liquefy the honey. The top of the can is raised, with a three-inch screw top. You can pour out of a three-inch hole, and by turning it over it will drain dry. Then, by putting it in the wooden jacket, with that wooden head over it, it goes by freight as fourth-class rate, anywhere. As to the cost to our Association members, it is furnished by the factories at 37½ cents by the 100, or 40c single can. Two square cans cost 60 cents; two cans boxed. I tried this comparison; I bought 100 cases of the square, and the same number of these cans, and I found that the freight on the square ones was \$2.60 more than it was on these round cans. Then, again, after they were filled we had that additional weight to pay for again; the consumer would have to pay before he got it, and it is the price between you and the consumer that is going to sell the

goods. Lastly, I find honey sells better in a single can. Imagine the convenience with a pail handle; and the honey in the jacketed cans is entirely encased in wood. I have shipped them to Maine, Colorado and Texas. I have had but one report of a leakage, and that is where they threw a trunk on it.

Mr. Ross — Does that fourth-class rate apply to car loads?

Mr. France—Yes.

#### PRICE OF APIARIAN LABOR.

"How much a month can an expert man get, working for a large honey-producer?"

Mr. France—Through the Information Bureau, there is one leaf containing the names of those who want help for 1911, and the prices they are offering I would not consider were intended for very professional men; they would accept from \$40 to \$70 a month. In some cases that includes board.

Mr. Davenport—In regard to that question, I might state information that was given me yesterday. Most bee-keepers throughout the country know something about him; he started a large corporation or trust to institute apiaries to amount to about some 50,000 colonies. He has already started 100 in Jamaica, and he stated to me he is willing to pay \$2,000 a year for a good, expert bee-keeper to handle a bee-yard of a thousand colonies.

#### INVITATIONS FOR THE NEXT ANNUAL MEETING.

Mr. Hofmann—Now, in regard to the next place of meeting, I want to say that I am here as a Member of the Executive Committee of the Minnesota Bee-Keepers' Association, with credentials as a duly elected delegate to represent our Association in this convention. I have come no short distance to extend personally to the National Bee-Keepers' Association an invitation to hold its next annual convention in Minnesota. The point of meeting, of course, will be left to the Executive Committee. Either Minneapolis or St. Paul are desirous of having the convention, and I can say, without successful contradiction, that either city is the equal of any in America. These points can be reached conveniently from any section. Many through railroad lines center here.

Living is very reasonable, and our convention halls have several times the seating capacity of this room, and are away from the noise and din of the streets. I hope that those who will have the next place of meeting to select will consider our claims favorably. I can assure you we will do everything in our power to entertain and make you feel at home, and I sincerely hope you will be induced to come. For years we have persistently invited the National to meet with us, and hope that this time we can play the role of host in 1911.

Mr. J. H. M. Cook—I would like to see the Convention held in New York City.

Mr. McEvoy—We have what we call a Fruit, Flower and Honey Show in Toronto in the early part of November each year, and the different lines of railway sell the return ticket for one fare. I wanted to bring you there as cheaply as we could, and at the same time show you we were on the map.

#### INFORMATION BUREAU.

Mr. France—I would like to explain

something that is pressed upon me: Seemingly the important need that this Association be doing something, and this so-called Information Bureau I have worked hard to try to develop, I am sorry to say, has not been grasped by the members as it ought. We have one column which shows men who have cash on hand ready to buy honey, and in another column, men who have bees to sell, and prices; and then people in 1910 who have not unloaded their honey, and want to sell. I want to say that in one week I unloaded 116,000 pounds of honey for our members, and it didn't cost them a cent. Then there is a column for those who want help in the bee-yard. Then, again, there is something which may excite your curiosity. We have one of our members who has been selling bee-stings, with a good, rich profit, to be used for rheumatism medicine.

York—We have received several letters from members who could not be here, expressing their regret.

At 4:20 p. m., on motion, the convention adjourned sine die, to meet again in 1911, at the call of the Executive Committee.





## LIST OF MEMBERS

—OF THE—

# Illinois State Bee-Keepers' Association

## FOR 1911.

(Where no State is given "Illinois" is understood.)

NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood In Your County?.
Ahlers, H. C.—West Bend, Wis.....	.....	.....	.....	.....
Almond Bros.—Libertyville, Ill.....	.....	.....	.....	.....
Anderson, J. L.—Harvard, Ill.....	.....	.....	.....	.....
Andrews, L. P.—Farina, Ill.....	.....	.....	.....	.....
Arnd, H. M.—191 Superior St., Chicago.....	.....	.....	.....	.....
Augenstein, A. A.—R. 1, Dakota, Ill.....	.....	.....	.....	.....
Bagley, Miss Pet—Putnam, Ill.....	.....	.....	.....	.....
Baldrige, M. M.—St. Charles, Ill.....	20	.....	.....	Yes
Balduff, Henry—Beardstown, Ill.....	100	2000	.....	.....
Bamberger, John—Freeport, Ill.....	.....	.....	.....	.....
Barkemeyer, B. D.—202 Chicago Ave., Oak Park, Ill..	.....	.....	.....	.....
Barnes, George—R. 2, Wenona, Ill.....	.....	.....	.....	.....
Baxter, E. J.—Nauvoo, Ill.....	240	100	7150	.....
Beardsley, E. H.—Princeton, Ill.....	.....	.....	.....	.....
Becker, Chas.—Pleasant Plains, Ill.....	.....	.....	.....	.....
Beeler, David S.—R. 5, Springfield, Ill.....	.....	.....	.....	.....
Beidler, W. H.—R. 6, Freeport, Ill.....	.....	.....	.....	.....
Beneche, Rev. W. F.—Dietrick, Ill.....	14	20	.....	.....
Benson, August—R. 2, Prophetstown, Ill.....	90	2200	.....	Yes
Bercaro, Geo. W.—Glendale, Calif.....	300	.....	.....	.....
Bevier, M.—Bradford, Stark Co., Ill.....	9	100	100	.....
Bishop, Frank—Virden, Ill.....	.....	.....	.....	.....
Bishop, W. W.—Virginia, Ill.....	80	500	.....	.....
Black, S. N.—Clayton, Ill.....	.....	.....	.....	.....
Blocher, D. J.—Pearl City, Ill.....	.....	.....	.....	.....
Blume, W. B.—Norwood Park Sta., Chicago, Ill.....	.....	.....	.....	.....
Bochland, G. J.—Rockford, Ill.....	7	395	.....	.....
Bodenschatz, Adam—Lemont, Ill.....	.....	.....	.....	.....
Bolt, R.—R. 3, Fulton, Ill.....	90	4000	300	.....
Boomer, E. H.—R. 1, Pecatonica, Ill....	.....	.....	.....	.....
Bowen, Clyde—Lyndon, Ill.....	.....	.....	.....	.....
Bowen, J. W.—Jacksonville, Ill.....	.....	.....	.....	.....
Boyden, R. W.—Jeffrey Bldg., Inst. Place, Chicago...	.....	.....	.....	.....
Bragg, James—Fairmount, Ill.....	70	500	300	Yes
Bronell, L. F.—Plano, Ill.....	6	150	.....	.....

NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood In Your County?.....
Brown, Mrs. E. W.—Box 17, Willow Springs, Ill.....	82	....	4000	Yes
Brown, Wm. G.—Rochester, Ill.....	....	....	....	....
Brubaker, W. H.—R. 3, Freeport, Ill.....	....	....	....	....
Bruner, E. H.—3836 N. 44th Ave., Chicago.....	60	800	200	Yes
Budlong, Wm.—1529 14th Ave., Rockford, Ill.....	....	....	....	....
Bull, John C.—Valparaiso, Ind.....	....	....	....	....
Burnett, R. A.—199 S. Water St., Chicago.....	....	....	....	....
Butterfield, L. A.—Seneca, Ill.....	....	....	....	....
Caldwell, C. S.—P. M. Elvaston, Ill.....	95	200	1300	....
Campbell, Grover—R. 2, Quincy, Ill.....	85	500	2000	....
Campbell, Jno. F.—No. 5 Wabash Ave., Chicago.....	....	....	....	....
Candler, Miss M.—Cassville, Wis.....	....	....	....	....
Canniford, C. J.—Winnebago, Ill.....	....	....	....	....
Carrico, John G.—Barnett, Ill.....	29	560	....	....
Case, David—Cherry Valley, Ill.....	....	....	....	....
Cave, Geo. W.—Kirkwood, Ill.....	90	1500	1000	....
Chapman, W. B.—Arlington Heights, Ill.....	....	....	....	....
Cherry, Thos. M.—Quincy, Ill.....	20	300	400	Yes
Clark, S. L.—Peru, Ill.....	....	....	....	....
Clawson, W. A.—R. 2, Assumption, Ill.....	18	1000	....	....
Cleber, Paul—R. 2, Wenona, Ill.....	....	....	....	....
Clem, F. M.—Danville, Ill.....	....	....	....	....
Cleveland, Frank—Prophetstown, Ill.....	....	....	....	....
Conrad, C. M.—R. 1, Box 2, Flanagan, Ill.....	....	....	....	....
Coppin, Aaron—Wenona, Ill.....	125	4000	600	Yes
Cox, Isaac N.—Elvaston, Ill.....	....	....	....	....
Cox, Wm.—Oakland, Ill.....	....	....	....	....
Craven, Thos.—Seneca, Ill.....	34	200	1800	....
Cremers, L. H.—East Dubuque, Ill.....	168	....	....	....
Crim, S. T.—Dawson, Ill.....	43	1800	20	....
Crotzer, A. S.—Lena, Ill.....	40	1100	....	....
Current, Harold—East Moline, Ill.....	57	1300	....	Yes
Dadant, C. P.—Hamilton, Ill.....	....	....	....	....
Dadant, H. C.—Hamilton, Ill.....	....	....	....	....
Dadant, L. C.—Hamilton, Ill.....	....	....	....	....
Dadant, M. G.—Hamilton, Ill.....	....	....	....	....
Deem, B. L.—Colona, Ill.....	34	400	600	....
Diebold, A. J.—Seneca, Ill.....	44	450	1800	....
Dollinger, Henry—R. 1, Lockport, Ill.....	50	....	....	Yes
Donyes, G. F.—Durand, Ill.....	64	300	6500	Yes
Downey, Elmer E.—Putnam, Ill.....	....	....	....	....
DuBois, Fred O.—Wapella, Ill.....	....	....	....	....
Duby, H. S.—St. Anne, Ill.....	100	Failure	....	....
Earnest, David P.—R. 1, East Alton, Ill.....	25	....	....	Yes
Eidmann, E. C.—407 Portland Ave., Belleville, Ill.....	60	25	700	Yes
Emmons, A. J.—Greenfield, Ill.....	65	360	960	....
Enigenburg, J.—Oakglen, Ill.....	40	100	1000	Yes
Fairbanks, C. A.—R. 1, Amosa, Ia.....	....	....	....	....
Falconer, W. W.—3000 N. 48th Ave., Chicago.....	....	....	....	....
Ferguson, L. R.—Harvey, Ill.....	....	....	....	....
Finger, C. A.—Marissa, Ill.....	20	....	540	....
Finkenbinder, D. A.—Stockton, Ill.....	30	600	....	....
Fischer, Henry F.—Eensonville, Ill.....	....	....	....	....

## NAME AND ADDRESS.

NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood In Your County?.....
Flanagan, E. T.—Belleville, Ill.....	75	.....	.....	Yes
Foltz, Adam C.—El Paso, Ill.....	16	500	20	.....
Fosse, E. P.—Marion, Ill.....	54	.....	.....	Yes
Frank, J. C.—R. 1, Davis, Ill.....	225	1000	12000	.....
Frank, J. C.—Dodge City, Kans.....	.....	.....	.....	.....
Fuller, L. H.—234 Elmwood St., Chicago.....	.....	.....	.....	.....
Funk, H. W.—Normal, Ill.....	100	.....	4000	Yes
Gallatin, S. W.—Martinsville, Ill.....	.....	.....	.....	.....
Gamash, James—Waukegan, Ill.....	.....	.....	.....	.....
Gilbert, G. B.—Monmouth, Ill.....	.....	.....	.....	.....
Glenn, C. J.—Geneseo, Ill.....	50	1200	.....	Yes
Grabbe, F.—Libertyville, Ill.....	.....	.....	.....	.....
Grannis, F. C.—Urbana, Ill.....	.....	.....	.....	.....
Grant, W. W.—Marion, Ill.....	15	.....	.....	Yes
Gray, W. H.—Chillicothe, Ill.....	120	6000	1500	Yes
Greenwell, A. P.—Industry, Ill.....	.....	.....	.....	.....
Gross, S. F.—Atwood, Ill.....	.....	.....	.....	.....
Group, John F.—Franklin Grove, Ill.....	15	500	.....	Yes
Halbrook, Mrs. R. B.—R. 2, Elgin, Ill.....	.....	.....	.....	.....
Hall, E. L.—St. Joseph, Mich.....	.....	.....	.....	.....
Hansell, Charlie—Minooka, Ill.....	20	350	156	Yes
Hansell, Will—Minooka, Ill.....	23	450	105	Yes
Hartman, Fred E.—R. 2, Troy, Ill.....	5	25	.....	.....
Hassler, J. H.—R. 4, Princeton, Ill.....	27	840	.....	.....
Hastings, Chas.—Decatur, Ill.....	.....	.....	.....	.....
Hawkins, Kenneth—Plainfield, Ill.....	50	500	.....	Yes
Healy, Pat—R. 2, Wenona, Ill.....	.....	.....	.....	.....
Heinze, Herman—R. 1, Miro, Ill.....	.....	.....	.....	.....
Heinzel, Albert O.—Lincoln, Ill.....	.....	.....	.....	.....
Heise, Paul—Warsaw, Ill.....	19	400	100	.....
Hettel, Mathias—Mariné, Ill.—Died April 8, 1911....	90	200	300	.....
Hill, H. D.—Lima, Ill.....	140	1000	600	Yes
Hinderer, Frank—Frederick, Ill.....	81	4100	400	.....
Hinman, Frank L.—Fremont, Ill.....	.....	.....	.....	.....
Hitt, Samuel H.—Elizabeth, Ill.....	.....	.....	.....	.....
Hohner, Peter—R. 1, Henry, Ill.....	60	1500	.....	Yes
Holdener, J. D.—Carlyle, Ill.....	40	950	800	.....
Hollis, Wesley—Morrison, Ill.....	.....	.....	.....	.....
Holmes, Miss H. C.—Bellerive, Ill.....	19	100	.....	.....
Holt, Arthur—Lyndon, Ill.....	.....	.....	.....	.....
Howard, W. W.—Gardner, Ill.....	.....	.....	.....	.....
Huffman, Jacob—Monroe, Wis.....	.....	.....	.....	.....
Hutt, Joseph G.—Peoria, Ill.....	40	3000	.....	Yes
Hyde, W. H.—New Canton, Ill.....	.....	.....	.....	.....
Johnson, J. P.—Elburn, Ill.....	.....	.....	.....	Yes
Johnson, M. D.—Webster, Iowa.....	60	3000	500	.....
Jones, Geo. W.—West Bend, Wis.....	.....	.....	.....	.....
Josephson, Mrs. Aug.—Granville, Ill.....	50	1500	725	Yes
Kendall, Byron—Hillsdale, Ill.....	18	500	.....	.....
Kendall, Frank R.—Byron, Ill.....	14	1000	.....	.....
Kendall, J. S.—Chemund, Ill.....	15	700	100	Yes
Kenneberg, C. F.—Oak Park, Ill.....	.....	.....	.....	.....
Kennedy, B.—Cherry Valley, Ill.....	.....	.....	.....	.....

NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood In Your County?..
Kennedy, Miss L. C.—Curran, Ill.....	67	2000	.....	.....
Kildow, A. L.—Putnam, Ill.....	.....	.....	.....	.....
Kils, Henry—Mason City, Ill.....	60	3000	.....	Yes
Kinney, F. L.—Morgan Park, Ill.....	.....	.....	.....	.....
Kluck, N. A.—Lena, Ill.....	.....	.....	.....	.....
Kneser, John—Barrington, Ill.....	94	2900	1700	.....
Kurr, J. T.—Louisville, Ill.....	35	.....	.....	Yes
Lampman, C. W.—Rockton, Ill.....	.....	.....	.....	.....
Lange, J. W.—Thawville, Ill.....	44	900	400	.....
Laurier, T. E.—R. 8, Jacksonville, Ill.....	.....	.....	.....	.....
Laxton, J. G.—Lyndon, Ill.....	.....	.....	.....	.....
Lebkuechner, H. R.—Chicago, Ill.....	.....	.....	.....	.....
Lee, Arthur—Rockton, Ill.....	.....	.....	.....	.....
Lee, H. W.—Pecatonica, Ill.....	.....	.....	.....	.....
Legat, Sylvester—Spring Valley, Ill.....	22	.....	200	Yes
Lehman, Gustav—Chicago, Ill.....	13	.....	500	Yes
Lemery, Mrs. Ed.—Lincoln, Ill.....	.....	.....	.....	.....
Lind, M. H.—Baders, Ill.....	115	2000	1200	Yes
Lovell, W. C.—Sycamore, Ill.....	.....	.....	.....	.....
Ludwig, H. M.—Collinsville, Ill.....	16	.....	.....	Yes
Luttrell, Sherman—Waverly, Ill.....	.....	.....	.....	.....
Macklin, Chas. G.—Morrison, Ill.....	146	3200	1200	Yes
Maranville, G. A.—Plano, Ill.....	.....	.....	.....	.....
Marshall, Wm.—Carpenterville, Ill.....	.....	.....	.....	.....
Marshall, Wm.—DeKalb, Ill.....	105	5000	.....	Yes
May, Fred H.—Meredosia, Ill.....	103	250	3060	.....
Meise, F. A.—Coatsburg, Ill.....	75	.....	1000	.....
Michael, S. P., & Sons—Spring Valley, Ill.....	150	1500	.....	Yes
Michell, P. A.—Forkland, Ala.....	.....	.....	.....	.....
Miller, Dr. C. C.—Marengo, Ill.....	.....	.....	.....	.....
Miller, W. C.—Ottawa, Ill.....	.....	.....	.....	.....
Moffatt, R. M.—R. 2, Rockford, Ill.....	.....	.....	.....	.....
Mohr, Mike D.—Hampton, Ill.....	12	500	50	Yes
Moore, Frank—Streator, Ill.....	.....	.....	.....	.....
Moore, W. B.—Altona, Ill.....	.....	.....	.....	.....
Mottaz, A.—Utica, Ill.....	70	2000	4000	Yes
Muchleip, H.—Apple River, Ill.....	65	1500	600	.....
McBarnes, W. H.—Rockford, Ill.....	.....	.....	.....	.....
McCartney, Geo. R.—Rockford, Ill.....	.....	.....	.....	.....
McCullough, John F.—Centralia, Ill.....	.....	.....	.....	.....
McDaniels, Eliza—Martinsville, Ill.....	.....	.....	.....	.....
McElfresh, Wm.—P. O. Springfield, Ill.....	12	.....	.....	.....
McKown, C. W.—Gilson, Ill.....	90	2000	3000	.....
McPherson, B. W.—Toledo, Ill.....	.....	.....	.....	.....
Nelson, Niels A.—Dike, Iowa.....	.....	.....	.....	.....
Ness, L. L.—Morris, Ill.....	220	5000	1000	Yes
Newcomer, Sam M.—Forreston, Ill.....	.....	.....	.....	.....
Niblack, M. J.—Vincennes, Ind.....	.....	.....	.....	.....
Norberg, Peter J.—Spring Valley, Ill.....	175	2000	7000	Yes
Null, Wm. D.—Prairieville, Ala.....	.....	.....	.....	.....
Nydegger, John—Danville, Ill.....	140	.....	.....	Yes
Oakes, Lannes P.—Joppa, Ill.....	28	400	.....	.....

## NAME AND ADDRESS.

NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood in Your County?..
Offnèr, Fred—Monee, Ill.....	6	70	....	....
Ohlemeyer, A. C.—New Minden, Ill.....	15	300	....	....
Ostermeier, John—Mechanicsburg, Ill.....	....	....	....	....
Ott, Calvin—Prophetstown, Ill.....	....	....	....	....
Pallissard, A. J.—R. 3, St. Anne, Ill.....	....	....	....	....
Payne, John W.—R. 1, Georgetown, Ill.....	30	700	300	....
Peterson, C. B.—6959 Union Ave., Chicago.....	....	....	....	....
Phillippe, G. Frank—R. 4, Champaign, Ill.....	....	....	....	....
Piper, G. M.—Chillicothe, Ill.....	106	No record	....	Yes
Pippenger, M. A.—Lincoln, Ill.....	22	600	....	Yes
Poindexter, James—R. 5, Bloomington, Ill.....	....	....	....	....
Potstock, H. A.—5427 Milwaukee Ave., Chicago.....	....	....	....	....
Pritchard, Charlie—Grand Rapids, Wis. ....	....	....	....	....
Probst, Herman—Bingham, Ill.....	6	50	50	Yes
Pyles, I. E.—Putnam, Ill.....	....	....	....	....
Rains, Chas.—Hutsonville, Ill.....	....	....	....	....
Rauchenberg, Wm.—Jefferson Park, Ill.....	20	250	168	....
Ravnaas, Jacob—Rochelle, Ill.....	....	....	....	....
Rehnstrom, Stephen—Andover, Ill.....	300	200	....	....
Reynolds, Alvah—Altona, Ill.....	20	250	....	Yes
Rigg, R. T.—Auburn, Ill.....	....	....	....	....
Riley, W.—Breeds, Ill.....	....	....	....	Yes
Ritter, W.—Genoa, Ill.....	23	700	200	Yes
Robbins, Daniel E.—Payson, Ill.....	....	....	....	....
Roberts, Thos. D.—Herscher, Ill.....	....	....	....	....
Robertson, J. H.—Keithsburg, Ill.....	....	....	....	....
Rolf, Wm.—Hoylston, Ill.....	40	....	120	....
Runlund, Peter—Cedar Point, Ill.....	....	....	....	....
Sauer, Geo. L.—Polo, Ill.....	....	....	....	....
Sauer, John—R. 5, Springfield, Ill.....	....	....	....	....
Schaar, Wm.—R. 3, Joliet.....	17	735	280	....
Schackman Bros.—Newton, Ill.....	....	....	....	....
Schroll, Julius—4922 Medill Ave., Chicago.....	....	....	....	....
Schmertman, Louis—R. 1, Freeport, Ill.....	30	....	3050	....
Schwartz, Henry—Hanover, Ill.....	11	500	....	....
Seastream, Geo.—Box 142, Pawnee, Ill.....	80	200	4000	....
Secor, Eugene—P. M. Forest City, Iowa.....	....	....	....	....
Secor, W. G.—Greenfield, Ill.....	54	168	780	....
Seeley, John W.—Toledo, Ill.....	30	....	....	....
Seibold, Jacob—Homer, Ill.....	....	....	....	....
Shaw, Duane—Palestine, Ill.....	90	2000	....	Yes
Shawver, Oscar—Casey, Ill.....	45	500	....	....
Shrontz, Mack—Momence, Ill.....	10	....	....	Yes
Shupe, Frank—Mazon, Ill.....	50	1000	100	Yes
Simpson, Wm.—Meyer, Ill.....	....	....	....	....
Slack, Geo. B.—Mapleton, Ill.....	50	2400	100	Yes
Smith, C. O.—5533 Cornell Ave., Chicago.....	....	....	....	....
Snell, F. A.—Milledgeville, Ill.....	....	....	....	....
Spitler, W. H.—Freeport, Ill.....	....	....	....	....
Stine, Rev. J. W.—Sperry, Iowa.....	....	....	....	....
Stockdale, Dr. F. A.—Coal City, Ill.....	18	500	....	Yes
Stone, Jas. A.—R. 4, Springfield, Ill.....	60	200	2000	Yes



NAME AND ADDRESS.	How many Colonies.....	Comb Honey in 1910.....	Extracted Honey in 1910.....	Is There Foul Brood In Your County?
Taylor, Hon. R. L.—La Peer, Mich.....	.....	.....	.....	.....
Thompson, J. E.—Carpenterville, Ill.....	.....	.....	.....	.....
Tobin, John F.—Rochester, Ill.....	.....	.....	.....	.....
Trickey, H.—Reno, Nev.....	.....	.....	.....	.....
Truby, S. K.—Maple Park, Ill.....	.....	.....	.....	.....
Turner, W. P.—Peoria Heights, Ill.....	.....	.....	.....	.....
Tyler, Fred—San Jose, Ill.....	35	500	.....	Yes
Ulrich, G. E.—Campus, Ill.....	10	500	.....	Yes
Van Butsele, Louis—R. 1, Collinsville, Ill.....	26	65	250	Yes
Van De Wiel, Anton—East Dubuque, Ill.....	12	.....	300	.....
Vawter, F. E.—Box 165, Industry, Ill.....	.....	.....	.....	.....
Vogil, Henry—Galena, Ill.....	86	3000	300	Yes
Voorhees, Abe—Oglesby, La Salle Co., Ill.....	.....	.....	.....	.....
Wagner, Frank M.—Quincy, Ill.—Died April 26, 1910.	.....	.....	.....	.....
Wagner, L. E.—Readstown, Wis.....	.....	.....	.....	.....
Walker, Albert—Petersburg, Ill.....	.....	.....	.....	.....
Weckerle, Mrs. Anna—12345 Wallace St., West Pull- man, Ill. ....	.....	.....	.....	.....
Werner, Louis—Edwardsville, Ill.....	.....	.....	.....	.....
Weston, Miss Georgia M.—Geneva, Ill.....	4	30	46	.....
Wheeler, J. C.—Oak Park, Ill.....	.....	.....	.....	.....
Whitmore, Dr. N. P.—Gardner, Ill.....	13	136	360	Yes
Whitmore, H.—Box 551, Momence, Ill.....	23	700	300	Yes
Whitney, W. M.—Evanston, Ill.....	.....	.....	.....	.....
Widicus, Daniel—St. Jacob, Ill.....	.....	.....	.....	.....
Wiegand, Adam—1575 Claybourne Ave., Chicago....	.....	.....	.....	.....
Wilcox, F.—Manston, Wis.....	.....	.....	.....	.....
Wilkie, J. D.—R. 2, Chicago Heights, Ill.....	11	150	.....	Yes
Windlow, John—86 Ashland Ave., River Forest, Ill..	6	400	.....	Yes
Withrow, G. M.—Buffalo, Ill.....	.....	.....	.....	.....
York, Geo. W.—117 N. Jefferson St., Chicago.....	.....	.....	.....	.....
Zeller, Mrs. Caroline—Spring Bay, Ill.....	7	336	.....	.....

### HONORARY MEMBERS FOR 1911.

Dr. G. Bohrer.....	Lyons, Kans.
Dr. E. F. Phillips, Bureau of Entomology.....	Washington, D. C.
Miss L. M. Stewart.....	5420 Frink St., Austin Sta., Chicago

## INDEX TO TENTH ANNUAL REPORT.

	Page		Page
Accepting an Introduced Queen...	97	Charter Members .....	7
Advertising to Create a Large Demand for Honey—F. R. Root...	185	Chicago Northwestern — Proceedings of .....	71
Affiliation—Question of .....	51- 52	Chicago Northwestern Report Discussed .....	58
Afternoon Session—First Day—Chicago N. W. ....	82	Cleaning Sections .....	216
Age of Bees Before They Go to Work .....	83	Clipping Queens .....	142
Alarm on Scales .....	206	Comb Honey — From Nectar to Market .....	167
Alexander Foul Brood Treatment..	84	Committee on Nominations.....	164
Alexander Modified Swarming....	167	Committee on Resolutions.....	151
American Foul Brood (to Distinguish) .....	89, 100	Committee on Rules—Report of..	151
Aplary Cage .....	171	Combs in Winter—Position of....	215
Appropriation, Before the 47th General Assembly .....	11	Concrete Hive Stands.....	62
A Queen Experience.....	99	Constitution .....	9
Article III.—Membership .....	50	Contagion—Causes of .....	17
Bee Escape .....	143, 206, 215	Co-operation Among Bee-Keeper —C. A. Hatch.....	74, 191
Bees as a Support.....	165	Curtains—Use .....	171
Bee-Keeper — How They Can Help Each Other.....	106	Dadant, C. P.—Picture of.....	23
Bees as Life Work.....	215	Dark Honey for Winter Stores....	184
Bees Carrying Eggs.....	68	Disinfecting the Honey Extractor.	62
Bee-Keeping as a Business—F. B. Cavanagh .....	147	Divisible Hive for Extracted Honey .....	143
Bee-Keeping for Women — By Mathilde Candler .....	117	Double Walled Hives—Their Advantages and Disadvantages....	136
Best Bottom Board, Cover, and Hive .....	53	Drain the Cappings.....	206
Best Hive Stand.....	143, 201	Dysentery—Causes — Treatment..	22
Black Bees vs. Italians on Buckwheat .....	167	Eggs—Bees Carrying .....	68
Black Brood—Pickled or—in Illinois .....	54	Election of Officers for 1911—Illinois State .....	67
Black Brood—Treatment .....	22	Election of Officers for 1911—Chicago Northwestern .....	91
Bohrer, Dr.—European Foul Brood —by .....	47	Escape—Bee .....	206
"Breeder" Queen—What is A?....	96	Evening Session—First Day—Illinois State Meeting.....	56
Brood—Foul; Treatment—Alexander .....	84	Exhibits and Judging at Fairs....	64
Brood — Pickled — Symptoms — Treatment .....	21	Experiment in Boiling Foul Brood.	18
Bulk Comb Honey.....	58	Extracted Against Comb Honey..	113
Bulk Comb Honey and Its Future —Louis H. Scholl.....	158	Extracted Honey—from Nectar to Market .....	152
By-Laws .....	9	Father Langstroth's Picture.....	4
Certificate of Inspection.....	13	Feeding Between Fruit Bloom and Clover .....	212
Charter .....	8	First Day—Evening Session—Chicago Northwestern .....	103
		Foul Brood .....	16

	Page		Page
Foul Brood Bill Just Passed in Kansas .....	32	Manufactured Comb Honey.....	166
Foul Brood Law.....	12	Marketing Honey .....	58
Foul Brood Law—Discussion on..	33	McEvoy—Treatment .....	19
Foul Brood Spread from the Cleanings of Hives.....	49	Melting Granulated Honey.....	129
Foul Brood—Symptoms of.....	18	Membership—Article III. ....	50
Foul Brood—Treatment .....	201	Membership of Affiliating Societies .....	50
Foundation in Sections.....	166	Mice—Poisoning in Hives.....	165
"France" Honey Can.....	216	Minutes of Last Meeting.....	24
France, N. E.—Picture of.....	145	Mixed Workers and Drones.....	58
		Moisture in the Bee Cellar.....	96
Getting Increase and Honey.....	184	Officers for 1911—Chicago N. W..	72
Give Your Bees Honey.....	128	Officers for 1911—Ill. State Ass'n..	5
Glassed Comb Honey and Prices..	189	Officers for 1911—National Ass'n..	144
Grading Comb Honey.....	142		
Granulation and Crystallization...	131	Package—Best for Retailing, Extracted Honey .....	99
Heredity .....	183	Paper—By Mathilde Candler.....	117
Hive Indicator .....	170	Paper—By A. Coppin.....	114
Hive Ventilation—Upward .....	97	Papsr—By Jacob Huffman.....	124
Honey and Foul Brood.....	60	Paper—By E. B. Tyrrell.....	106
Honey—Comb or Extracted?.....	94	Pickled or Black Brood in Illinois .....	21, 54
Honey Crop—Selection in Breeding to Increase.....	183	Picture of Dadant, Louis C.....	72
Honey Dearth—Providing for....	104	Picture of France, Hon. N. E....	145
Honey Dew for Winter Stores....	165	Picture of State Bee-Keeper's Members present .....	70
Honey—Price of Extracted.....	94	Picture of York, Geo. W.....	72
Honey Strainer .....	170	Pollen—Getting it Out of Extracted Honey .....	105
Honorary Members—First .....	7	Position of Combs in Winter.....	215
How is Honey Sold—Simply as Honey, or On Its Merits?.....	133	President York's Address.....	173
Huckleberry Bloom .....	165	Prevent Robbing .....	172
Hybrids—What About Them?....	87	Price of a One Pound Bottle of Honey .....	74
Illinois State Bee-Keeper's Ass'n—Formation of .....	7	Price of Apiarian Labor.....	216
Increase and Honey.....	184	Price of Extracted Honey.....	184
Information Bureau .....	216	Prices Compared with 23 Years Ago .....	119, 193
Inspector's Report .....	40	Prices of Honey—Difference in...	107
Introducing Old Virgin Queens....	215	Proceedings of the Chicago Northwestern .....	71
Introducing Queens .....	215	Proceedings of the Illinois State Ass'n .....	23
Invitations for the Next Annual Meeting .....	216	Producer—How Much Should He Get for Honey?.....	92
Italianize—When to .....	215	Producers' Names on Honey.....	134
Italians for Central Illinois.....	104	Profitable Bee Management Without Swarming .....	213
		Propolis—Percent of in Beeswax..	103
Judging at Fairs and Exhibits....	64	Proportion of Sugar Syrup.....	215
Kildow, A. L.—Picture of.....	67		
Kildow, A. L.—Report of Inspector.	40	Queen Cells—Destroying to Prevent Swarming .....	102
Labor—Apiarian—Price of .....	216	Report of Committee on Nominations .....	200
Laying Worker Colony—To Introduce Queen to.....	91	Report of Committee on President's Address .....	196, 204
Letter of Transmittal.....	3		
Libraries Calling for Our Report..	25		
Longevity in Bees.....	183		
Long Lived Queen Bees.....	139		

	Page		Page
Report of Committee on Resolutions .....	204	Symptoms of Foul Brood.....	18
Re-Queen Colonies—When to.....	216	Tampering With Shipped Honey..	134
Retailing Honey—Methods of—By Wesley Foster .....	210	Tools Painted White.....	171
Ripening Honey on the Hives—By W. P. Southworth.....	161	Top-Flow and Travel Stain.....	216
Room Temperature for Bottling Honey .....	131	Trap the Robbers.....	171
Rules for Grading Honey.....	14	Travel Stained Honey.....	167
Salary of General Manager.....	205	Treasurer's Report — Chicago Northwestern .....	91
Second Day — Morning Session—Chicago Northwestern .....	114	Treasurer's Report—Illinois State..	28
Second Day — Morning Session—Illinois State Ass'n.....	64	Utah Inspectors .....	20
Secretary's Financial Report.....	29	Value of Longevity in Bees.....	82
Secretary's Report .....	24	Weak Colony .....	141
Selection in Breeding to Increase the Honey Crop.....	183	Weight—Does Some Honey Vary In? .....	131
Size of Hives.....	215	What a Woman Can Do With Bees —Mrs. S. Wilbur Frey.....	146
Sour Honey to Feed Bees.....	141	When and How to Re-Queen With a Fall Flow.....	206
Southern Honey Production, Etc.—By J. J. Wilder.....	211	When to Italianize.....	215
Stimulative Feeding .....	124	Winter Hive Cover in Spring.....	138
Stopping Up the Bee-Escape.....	142	Wintering Bees in Cellar.....	69
Strengthening Comb Foundation..	101	Wintering Weak Colonies.....	54
Strengthening Weak Colonies.....	95	Workers and Drones from Italian Queen .....	98
Success With Bees.....	165	World's Panama Exposition Co. of New Orleans .....	26
Swarm Control and Comb Honey..	101		
Swarms—Hiving .....	105		

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